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**EVOLVING REABLEMENT  
THROUGH OCCUPATIONAL PERSPECTIVES  
AND WELFARE TECHNOLOGY IN HOME CARE**

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# Evolving Reablement through Occupational Perspectives and Welfare Technology in Home Care

## Thesis for Doctoral Degree (Ph.D.)

By

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Nothing should be more expected than old age: nothing is more unforeseen.

—Simone de Beauvoir, *The Coming of Age*





# POPULÄRVETENSKAPLIG SAMMANFATTNING

I Sverige, som i många andra länder i världen, ökar livslängden och andelen äldre. Några av oss kommer sannolikt att möta på mindre eller större utmaningar på vår väg att nå en högre ålder, vilket kommer att påverka våra liv i olika grad. Dessa hinder och utmaningar kan kräva att vi någon gång behöver stöd för att fortsätta leva ett värdigt, hälsosamt och tryggt liv i våra hem. För att möjliggöra ett tryggt och hälsosamt åldrande när man bor kvar hemma är insatser från eventuell hemsjukvård och hemtjänst betydelsefulla.

I dag får cirka 230 000 personer i Sverige över 65 år hemtjänst. Inom hemtjänsten arbetare undersköterskor och vårdbiträden och insatserna omfattar allt från inköp till hjälp med personlig vård. Hemtjänstpersonalens arbetsmiljö består dock av flera påfrestningar och utmaningar, som att balansera äldre personers unika behov samtidigt som organisationen ställer krav på hur insatserna ska tillhandahållas. Utöver detta, så utmanas hemtjänstens personal med hög sjukfrånvaro och hög personalomsättning samt en förutspådd fortsatt underbemanning i förhållande till antalet äldre som kommer att behöva deras insatser.

Påfrestningarna och stressen kan vara en orsak till att hemtjänstpersonal utför aktiviteter åt de äldre i större utsträckning – då detta uppfattas vara effektivare och tidsbesparande. Dock skapar arbetssättet begränsningar för att äldre personer ska kunna delta i aktiviteter som de vill eller behöver göra. Detta kan leda till att den äldre personen blir mer passiv i sin vardag vilket påverkar deras hälsa och välbefinnande negativt. Denna situation riskerar inte bara de äldres hälsa och välbefinnande, utan kan även leda till ökade påfrestningarna och arbetsbelastningar för hemtjänstpersonalen då den äldre behöver mer insatser. Hemtjänsten behöver omstruktureras för att kunna främja äldre personers hälsa och välmående. Ett personcentrerat helhetsperspektiv behöver tydligare lyftas fram där den äldres deltagande i vardagliga aktiviteter stärks. För att möjliggöra detta behöver vi utforska nya arbetsmetoder och förhållningssätt.

Reablement är ett relativt nytt rehabiliterande förhållningssätt i Sverige, men har framgångsrikt implementerats i våra grannländer Norge och Danmark. Grundidén är att stödja och samarbeta med äldre personer för att stärka deras förmågor och öka deras självständighet i önskade vardagliga aktiviteter. Arbetet bygger på samverkan mellan den äldre, hemtjänstpersonal samt hälso- och sjukvårdspersonal och där den äldre personen identifierar aktiviteter i sin vardag som denne anser vara viktiga och meningsfulla, men upplever svårigheter att utföra eller delta i.

Reablement har potential att förbättra äldreomsorgen i Sverige genom att stärka samarbetet mellan olika yrkesgrupper samt främja ett helhetsperspektiv och individanpassat stöd där hänsyn tas till hela personens situation och behov. Forskning visar att denna metod positivt påverkar den äldre personens upplevda livskvalité, ökar

deras självständighet i vardagliga aktiviteter och minskar deras behov av hemtjänstinsatser. Förutom hälsofrämjande resultat för äldre så framhävs det att personal som arbetar enligt reablement trivas bättre med sitt arbete. Dessutom främjar metoden även utvecklingen av hur hemtjänsten kan arbeta både rehabiliterande och med förebyggande åtgärder. Även om tillämpningen och forskningen av reablement har ökat det senaste decenniet saknas kunskap som kan stärka förankringen av reablement som en arbetsmetod att satsa på i välfärden. Teorier och begrepp som används i relation till reablement behöver förtydligas för att klargöra varför metoden är unikt och svarar på hur det praktiska arbetet ska guidas. Reablement är en metod som står i kontrast mot ordinarie hemtjänstinsatser i dagens Sverige, men har potential att förändra förutsättningarna för människors hälsa och välmående där äldre kan åldras på sina villkor i sitt egna boende.

**Syftet:** Det övergripande syftet med denna avhandling är att bidra till utvecklingen av reablement i hemtjänsten för att främja ett hälsosamt åldrande för äldre personer i sin hemmiljö genom att belysa användningen av teori, aktivitetsperspektiv och välfärdsteknologier.

**Genomförande:** Fyra studier har genomförts för att utveckla och bidra med kunskap som denna avhandling grundar sig på. I den första studien samlades data in via frågeformulär som skickades till 467 hemtjänstpersonal gällande deras upplevda psykosociala arbetsmiljö och arbetsbelastning. Data analyserades med statistiska metoder som flernivåregression för att identifiera individuella och organisatoriska faktorer som kan påverka den upplevda arbetsbelastningen. I den andra studien utvärderades genomförbarheten av reablement programmet ASSIST 1.0. Sju äldre personer fick pröva ASSIST 1.0 med stöd av tre undersköterskor i jämförelse med tio äldre personer som fick ordinarie hemtjänst. Genomförbarheten utvärderades med data från intervjuer, observationer och fältanteckningar, som analyserades med en kvalitativ innehållsanalys. Frågeformulär om den äldres upplevda hälsa, välmående och aktivitetsförmåga analyserades med beskrivande och analytisk statistisk. I den tredje studien intervjuades tre undersköterskor, som deltog i ASSIST 1.0, vid tre tillfällen; innan programmet startade, efter sex månader från start och till sist ett år efter start. Intervjuerna analyserades med en reflexiv tematisk analys. I den fjärde studien utvärderades användbarheten och användarupplevelsen av ett tekniskt system som bland annat innefattade användning av QR koder i en hemtjänstorganisation. Fem hemtjänstpersonal och en enhetschef från en hemtjänstenhet deltog i två uppgiftsbaserade tester där användbarheten bedömdes genom att de testade tekniken i ett strukturerat test. Utöver detta testade en annan hemtjänstenhet med 40 medarbetare det tekniska systemet i deras vardagliga arbete. Sex medarbetare från den enheten deltog avslutningsvis i en gruppintervju och tre chefer från hemtjänstorganisationen deltog i individuella intervjuer för att berätta om sina

upplevelser att använda systemet i deras arbete. Dessa intervjuer analyserades med kvalitativ innehållsanalys.

**Resultat:** Den första studien påvisar ett komplicerat samspel mellan individuella och organisatoriska faktorer, samt psykosomatiska hälsfaktorer som påverkar hemtjänstpersonalens upplevda arbetsbörda. Höga arbetskrav och hög upplevelse av stress och oro var de främsta faktorerna som påverkade den upplevd arbetsbördan. Resultatet visar även på behovet av att kunna delta i beslut, stöd till kompetensutveckling, samt att cheferna behöver vara mer uppmärksamma på personalens hälsa och välbefinnande. Den andra studien visade att hemtjänstpersonal och arbetsterapeuter effektivt kunde tillhandahålla ett skraddarsytt stöd med reablement till äldre person som bor hemma. Programmet ASSIST 1.0 accepterades av deltagarna i studien och ansågs möjlig att använda i praktiken. En nyckelfaktor var att sätta personcentrerade mål samt att hemtjänstpersonalen och arbetsterapeuten hade regelbundna möten. Den tredje studien framhäver behovet av tydliga strategier för att utveckla en gemensam förståelse för vad reablement innebär och hur det ska tillämpas. Användningen av teorier och perspektiv, från bland annat arbetsterapi, spelar en viktig roll i tillämpningen av reablement genom att fokusera insatserna på meningsfulla aktiviteter. Den fjärde studien antyder att det utvärderade tekniksystemet och användningen av QR koder kan underlätta kunskapsdelning i samband med hemtjänstinsatser samt bidrar till en effektivare kommunikation mellan olika aktörer.

**Avhandlingens summering:** Baserat på resultaten av de fyra studierna, bygger denna avhandling vidare på de pågående diskussionerna om reablement och fördjupar sig i vad som behövs för att reablement ska utvecklas. I diskussionen presenteras tre perspektiv som kan bidra till utvecklingen av reablement. Den första delen är en kritisk reflektion om teorier som reablement kan grundas på och hur dessa kan stärka det personcentrerade och holistiska förhållningssättet samt hur teorierna bidrar till att reablement kan stärka sitt unika förhållningssätt. Därefter diskuteras varför och hur olika aktivitetsperspektiv kan erbjuda nya insikter om hur reablement kan utformas. Dessa två områden sammanvävs och bidrar till att presentera ett förslag för en ny definition av reablement. Den tredje delen handlar om varför välfärdsteknologi är avgörande för att främja ett interprofessionellt och personcentrerat förhållningssätt inom reablement. Baserat på resultaten och diskussionen föreslås slutligen varför reablement bör införas i den svenska välfärden samt att det behövs en förändring av policy och riktlinjer för att främja ett hälsosamt åldrande.

# ABSTRACT

**Rationale:** Sweden is encountering dual societal challenges characterised by a rapidly ageing population and a diminishing home care workforce, leading to strained resources, which potentially can impact the quality of care. This situation poses a considerable risk to the health and overall well-being of older adults and home care staff. Innovative strategies are necessary to restructure the provision of home care services that promote healthy ageing and enable older adults to age in place. Reablement, as a rehabilitation approach, is recognized in other countries but is relatively new in Sweden. However, despite increased research, knowledge gaps and ambiguities persist regarding reablement's theoretical foundation and key components. This knowledge is needed to increase transferability and facilitate successful implementations, thereby advancing the evolution of reablement.

**Aim:** This thesis aims to contribute to the evolution of reablement in home care, using theory, occupational perspectives, and welfare technology to promote healthy ageing in place.

**Method:** The four studies included in this thesis applied various methods to gain knowledge about different perspectives and prerequisites for reablement to evolve. *Study I* applied a quantitative approach where a questionnaire was sent out to 467 home care staff containing questions about their perceived psychosocial work environment and job strain. Data was analysed with descriptive and inferential statistics. *Study II* is a quasi-experimental, mixed-method feasibility study of the reablement program ASSIST 1.0. Seven older adults and three home care staff participated in the program, and ten older adults participated in the control group and received ordinary home care. Quantitative data from clinical outcome measures were analysed with descriptive and inferential statistics, and interviews and field notes were transcribed and analysed according to a qualitative content analysis. *Study III* is a qualitative study containing nine interviews conducted with the three home care staff involved in ASSIST 1.0 to explore how theories and concepts can evolve the understanding of reablement. The interviews were analysed with Braun & Clarke's reflexive thematic analysis. *Study IV* applies a mixed-method design to evaluate the usability and user experience of an information and communication technology system within a home care organization. Quantitative data consisted of test-based usability assessments and self-reported questionnaires, analysed with descriptive statistics. Qualitative data consisted of transcribed material from one focus group interview with six home care staff and three individual interviews with managers from the home care agency.

**Conclusion:** The outcomes from the four studies lay the foundation for the discussion of this thesis, focusing on current reablement discourses and delving into three areas contributing to the evolution of reablement. The first two areas critically reflect on theories that can underpin reablement, strengthen the person-centred and holistic approach, and discuss why and how occupational perspectives can provide new outlooks for reablement. Combined, these two areas contribute to an evolved definition of reablement. The third area addresses why welfare technology is essential for enhancing the interprofessional and

person-centred approach in reablement. Finally, it is proposed why reablement should be implemented in Sweden, advocating for a change in policies and guidelines for how home care can be reconstructed to facilitate healthy ageing in place.

## LIST OF SCIENTIFIC PAPERS

- I. Assander, S., Bergström A., Olt H., Guidetti S., & Boström A-M. (2022). Individual and organizational factors in the psychosocial work environment are associated with home care staffs' job strain: a Swedish cross-sectional study. BMH Health Service Research. <https://doi.org/10.1186/s12913-022-08699-4>
- II. Assander, S., Bergström A., Eriksson C., Meijer S., & Guidetti S. (2022). ASSIST: a reablement program for older adults in Sweden – a feasibility study. BMC Geriatrics 22, 618. <https://doi.org/10.1186/s12877-022-03185-2>
- III. Assander S, Guidetti S, & Bergström A. (2023). Applying theories and models to evolve reablement within home care. In manuscript.
- IV. Assander S., Bergström A., Meijer S., & Guidetti S. (2023). QR codes to facilitate knowledge management in a home care organization. Submitted.

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# ABBREVIATIONS AND DEFINITIONS OF CONCEPTS

In this thesis, the following abbreviations and definitions of concepts are used.

|                                       |  |
|---------------------------------------|--|
| <b>ADL</b>                            | Activities in Daily Living are used to collectively describe <i>basic</i> and <i>instrumental</i> activities.<br><i>Basic</i> ADL's refers to activities such as ambulating, feeding, dressing, personal hygiene, continence, and toileting.<br><i>Instrumental</i> ADL's refer to activities such as transportation, shopping, meal preparation, home maintenance and managing financing, medications, and communication with others. |
| <b>Ageing</b>                         | The process of growing old.  |
| <b>Ageing in place</b>                | The process of growing old in one's home and community.  |
| <b>CG</b>                             | Control group  |
| <b>CMOP – E</b>                       | Canadian Model of Occupational Performance – Engagement<br>Includes three main components: person, environment, and occupation. Occupations are performed in the domains of self-care, productivity, and leisure. (11)   |
| <b>CMS</b>                            | Content Management System  |
| <b>Complex Interventions</b>          | An intervention with a multitude of interacting components where the outcome is dependent on those delivering and receiving the intervention.  |
| <b>Convergent mixed method</b>        | Comparing and/or combining qualitative and quantitative results.   |
| <b>COPM</b>                           | Canadian Occupational Performance Measure  |
| <b>Elderly Care</b>                   | The Swedish welfare system and organisation that provides services and support to older adults (+65).  |
| <b>Functional ability</b>             | The health-related attributes that enable people to be and to do what they have reason to value. Functional ability is the combination of a person's intrinsic capacity and the interaction with the environment (World Health Organization).  |
| <b>Healthy ageing</b>                 | The process of developing and maintaining the functional ability that enables well-being in older age (WHO, 2, p28).   |
| <b>Home Care Services</b>             | Non-medical services provided in the home.   |
| <b>HCS</b>                            | Home Care Staff  |
| <b>Home Care Staff</b>                | Staff working in home care support individuals at home and in the community with activities in everyday life.  |
| <b>ICT</b>                            | Information and Communication Technology   |
| <b>IG</b>                             | Intervention group   |
| <b>Intrinsic capacity</b>             | "all the physical and mental capacities of an individual" (WHO, 2)   |
| <b>Job strain</b>                     | The effects of stress, the wear and tear itself, but also the causality relationship between stress and strain is interrelated with a complex system of variables associated with stress.  |
| <b>KM</b>                             | Knowledge Management   |
| <b>(Digital) Knowledge Management</b> | A way to organize, store, develop and disseminate (digital) information.   |
| <b>MI</b>                             | Multiple Imputation  |
| <b>MLR</b>                            | Multiple Linear Regression   |
| <b>NPM</b>                            | New Public Management  |
| <b>Occupation</b>                     | Various everyday activities people do themselves or with others to occupy time and bring meaning and purpose to life (11 p.133).   |
| <b>Occupational Performance</b>       | The execution of an occupation.  |

|                                  |   |
|----------------------------------|---|
| <b>Occupational Perspectives</b> | A way of looking at or thinking about human doing (16).   |
| <b>Occupational Science</b>      | The study of human as occupational beings.  |
| <b>Occupation-Based</b>          | When occupation is a fundamental part of something, e.g. use occupations as a primary means to achieve goals. Engagement in occupations can be used as a means for intervention and evaluation.   |
| <b>Occupation-Focused</b>        | Bringing occupation into focus – focusing on occupation. Occupation is the main focus or intention of an intervention.  |
| <b>Older adults</b>              | In this thesis, older adults refer to people who are 65 years or older.   |
| <b>OT</b>                        | Occupational Therapist  |
| <b>Research group</b>            | This thesis sometimes refers to “the research group” which consists of the author of this thesis, the main supervisor Susanne Guidetti, and co-supervisor Aileen Bergström and Sebastian Meijer. Study II also includes the research assistant/occupational therapist Christina Eriksson. |
| <b>Resilience</b>                | The ability to maintain or improve a level of functional ability in the face of adversity (either through resistance, recovery, or adaptation) (2)  |
| <b>RCT</b>                       | Randomized Controlled Trial   |
| <b>SD</b>                        | Standard Deviation  |
| <b>SDHCS</b>                     | Supported Discharge Home Care Service   |
| <b>SE</b>                        | Standard Error  |
| <b>Self-care</b>                 | Defined accordingly to CMOP-E, where self-care includes personal care, functional mobility, and community management.   |
| <b>SPSS</b>                      | The Statistical Package for Social Sciences   |
| <b>SALAR</b>                     | Swedish Association of Local Authorities and Regions  |
| <b>SNBHW</b>                     | Swedish National Board of Health and Welfare  |
| <b>UN</b>                        | United Nation   |
| <b>Well-being</b>                | the broadest sense and includes domains such as happiness, satisfaction and fulfilment (2)  |
| <b>WHO</b>                       | World Health Organization   |



# 1 INTRODUCTION

## 1.1 Personal Introduction

My professional journey has never been predeterminate but rather guided by my curiosity and genuine interest in humans and human nature. Looking back, I wanted to be a writer – possibly a journalist or a crime author, before choosing a different professional path. Although becoming a writer might seem far away from where I am today, I consider it as closing the circle by having become a researcher writing this thesis. Trying to find my way in what to do, what to evolve, and where to belong, I have been open-minded and curious about the roads ahead. However, I have always wanted to explore, learn, and understand humans and our interaction with the world.

Almost 20 years ago, I entered the path of becoming an occupational therapist. Little did I know at the time about the profession when I applied to the education program. Today, nothing makes more sense than that all of us should be able to do, be, or become what we want, or belong in or to a place we want to be. We should have the autonomy and right to determine how we want to fill our days with (meaningful) occupations or activities. However, that is not everyone's reality.

After completing my occupational therapist education, my next search of becoming and belonging concerned which field to work in. Once again, I followed the path of opportunities, resulting in mainly working with older adults. What I enjoyed the most was the personal interactions and stories that were shared. There were plenty of fika-moments (typical Swedish tradition of having coffee and cookies) in relation to assessments, providing assistive devices, and home modifications. I probably did not understand the meaning of all the fika moments at that time, but it is more evident to me now. Not only was it a cultural curtesy aspect to offer fika, but I now reflect on whether my meetings with the older adults brought meaning to their everyday in that moment, at least for some. Not that specifically I would visit them, but for them to receive a visit from someone to share a moment with. Doing meaningful occupations such as baking, setting the table, and socialising. To do, be, and belong and maybe become?

Later in my life, my curiosity and search for who I wanted to become and where to belong took me on a journey out on the continent to new contexts and experiences – this time exploring research and education. On one of those minor continental journeys, I ended up on a train next to an interesting person – discussing research, what to become, and possibly where to belong. Once again, little did I know then that due to this coincidental encounter, the next step in my professional journey would be to return to Sweden, conduct a PhD, and write this thesis. A thesis about why reablement is an approach that can be essential when providing healthcare and social care services to

enable older adults to age in place; why the reablement approach needs underpinning theories and clarifications; and exploring how occupational perspectives of doing, being, becoming, and belonging can provide us with new insights about home care services and older adults. Hence, writing a thesis intending to contribute to the evolvement of reablement.

So maybe, somewhere in the back of my mind, my professional search for who I wanted to become and where I wanted to belong might have been the search for how to become an author within science with the potential to make an impact beyond crime books – to evolve the conditions for healthy ageing.

## 1.2 Point of Departure

Ageing is an inevitable journey we all embark on, yet it is often overlooked until we find ourselves amid it. In a world where life expectancy continues to rise, the global older adult population expands, but a question lingers: will they thrive as they age?

As societies push towards healthier ageing, tailoring support to individual needs becomes crucial. In 2020, the United Nations (UN) and the World Health Organization (WHO) presented their "Decade of Healthy Ageing" agenda, a vision and program to enhance older adults' functional abilities and thereby enable healthy ageing (1,2). Healthy ageing represents a new paradigm that governments and social policies emphasise<sup>1</sup> and refers to "the process of developing and maintaining the functional ability that enables well-being in older age" (1, p.9). However, to facilitate healthy ageing, several stakeholders must organise and structure their support accordingly.

Many individuals in the population will encounter minor or more significant challenges that will influence their health and well-being differently. These challenges can create a demand for home healthcare and home care support services to enable ageing in place and promote healthy ageing. However, the current state of the home care sector is marked by strained conditions and resource limitations, which pose risks to the provision of care.

In Sweden, the challenges faced by home care staff employees have gained increasing attention over the last decade (3,4). The dissatisfaction among staff has become a prominent concern. The profession is challenged by organisational demands, such as high job demands and restricted ability to influence their work situation, as well as high

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<sup>1</sup> See a variety of documents from Folkhälsomyndigheten [Public Health Agency of Sweden] <https://www.folkhalsomyndigheten.se/livs villkor-levnadsvanor/halsa-i-olika-grupper/halsosamtaldrande/internationellt/> and the European Commission [https://health.ec.europa.eu/index\\_en](https://health.ec.europa.eu/index_en)

turnover rates, sick leaves, and predicted understaffing in relation to the number of older adults who will require their care and support (5,6).

Emerging as one potential solution to some of these challenges is reablement, which is gaining ground in the health and social care community internationally. Reablement is a holistic approach focusing on enhancing individuals' abilities, empowering them to engage in meaningful activities, and upholding their independence (7).

Reablement introduces a new rehabilitation approach in Sweden (8), potentially breaking ground for how interprofessional teams can collaborate with older adults to identify and tailor the care and support so they can age in place. Although research on reablement in other countries has increased vastly during the last decade (7), knowledge gaps and ambiguities persist regarding its theoretical foundations and key components (9). These theories and concepts must be identified and clarified to increase knowledge transferability between contexts, increase the probability of successful implementation, and advance the evolution of reablement. Furthermore, to enable a successful implementation of reablement, there is a need to advocate for a change in policies and guidelines on how support to older adults who want to age in place can be provided to facilitate healthy ageing.

This thesis aims to contribute to the evolution of reablement in home care, using theory, occupational perspectives, and welfare technology to promote healthy ageing in place.

Since this thesis is grounded in occupational therapy, occupational science, and gerontology, the background focuses on theories and concepts relating to these areas and introduces the reablement approach and the concept of welfare technology. After that, the aim and method section follows, including details regarding study design, context, and data collection and analysis. Ethical and methodological considerations are addressed before presenting the results from the four studies. The discussion addresses how theories, occupational perspectives, and welfare technology can contribute to the evolution of reablement. Additionally, these discussions contribute to a proposed evolvement of reablement. Founded on these discussions, it is proposed why reablement should be implemented in Sweden, advocating for a change in policies and guidelines for how home care can be reconstructed to facilitate healthy ageing in place.

## 2 BACKGROUND

In this background, I present theories and concepts related to occupational therapy, occupational science, and gerontology before continuing with ageing in a European and Swedish context, as well as how health and social care services are provided in Sweden and current dialogues. Finally, I introduce the rehabilitation approach of reablement and the concept of welfare technology.

### 2.1 Theories and Concepts of Occupation

Since the research in this thesis evolves from theories and concepts of occupational therapy and occupational science, this section will highlight some of these theories and concepts. Occupational therapy is the health profession, supporting individuals to engage and participate in meaningful occupations. Theories from occupational therapy provide frameworks and clinical reasoning to the practice. Occupational science is an academic science, not limited to occupational therapists, seeking to understand the nature of human occupation and how occupations influence health and well-being (11,12). Occupational therapy and occupational science are rooted in the holistic view of human doing and seek to understand how occupations are done, their purpose, and meaning. Therefore, the common denominator is *occupation*.

The definition of *occupation* has shifted during the last century (11,12); hence, I will present how I understand and define occupation for this thesis. At the end of the 20<sup>th</sup> century, Wilcock defined occupation as “all the things that people do, the relationships of what they do with who they are as human beings” (6, p.10), a brief summary but challenging to interpret. As such, to be more explicit and illuminate the more complex aspect of occupation, I will use the definition presented by the International Society of Occupational Scientists:

The various everyday activities people do as individuals, in families, and with communities to occupy time and bring meaning and purpose to life. Occupations include things people need to, want to, and are expected to do. (5, p.133)

Besides using the word *occupation*, I will also use the word *activity* in this thesis. I use this word to refer to a set of tasks, or an action of tasks, on a more general basis, which is culturally shared, such as dressing, walking, cooking, working, and reading but is not unique for each person (14). The reason for also including the word *activity* is because it is used and understood more generally in everyday life. In simplified terms, *occupation* is activities that bring meaning and purpose to our lives, while *activities* refer to what we want and/or need to do in daily life. In conversations with participants in Studies II–IV, we mainly discuss activities in daily life. Moreover, the word *activity* is used in several assessment tools included in the studies constituting this thesis.



With occupation as a core, occupational perspectives concern how we view and consider human doing<sup>2</sup> (15) and how we seek to understand health in different dimensions as an outcome of occupation. To understand what is meant with an occupational perspective and how it relates to a broad societal context, the definition by XXX can provide support:

What people do every day on their own and collectively; how people live and seek identity, satisfaction and autonomy; how people organize their habits, routines, and choices to promote health; and how people collectively have organized systems such as education and health to support (or not) what all populations need and want to do in their occupations to live well and be healthy. (9, p.67)

This thesis permeates selected occupational perspectives that serve as the structural foundation of the novel reablement program ASSIST 1.0 (presented in Chap. 4) and for Studies II, III, and IV. In this thesis, I will focus on the perspectives: 'doing', 'being', 'becoming', 'belonging', 'occupational performance', 'occupational engagement', and 'enabling occupation'. Furthermore, the outcomes of the four studies will be explored by applying occupational perspectives (Chap. 6) to develop a deeper understanding and provide new insights into the provision of home care services for older adults as well as how they can contribute to the evolvement of reablement.

### **2.1.1 Doing, Being, Becoming, Belonging**

In the field of occupational science, the exploration of human occupation often revolves around four fundamental perspectives: doing, being, becoming, and belonging.

Within occupational science, an ongoing debate surrounds the hierarchy of the four perspectives, and it is argued that the order of presentation can imply a cultural and positional hierarchy (17). However, I take the stance that I do not attribute a specific hierarchical order to these words or assign greater or lesser importance to the words based on their sequence. I view doing, being, becoming, and belonging as distinct yet equally important and intertwined perspectives to understand occupation. However, past experiences and discussions with colleagues and researchers may have influenced this choice. The order in which they appear in this thesis is primarily for textual coherence but also to create a sense of temporal progression. The arrangement is designed to build upon the previous section (2.1), where I introduced occupational perspectives and the focus on human *doing*. Subsequently, I will transition from '*doing*'

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<sup>2</sup> When reading this thesis, one should be aware of the different views and understandings that people have about *doing*. For an occupational therapist, doing (as defined in the text) might be fundamental when observing or analysing a person's interaction with their environment. While other professions might consider doing as activities a person can or cannot do (i.e., perform), limiting it to a person's physical or cognitive abilities.

to '*being*', which I associate with a current "here-and-now" state. *Being* is followed by *becoming*, which is considered a process relating to change or something that will occur (12). Finally, I present *belonging*, not because it is the last step of a process but because I consider the other three perspectives to constitute an understanding of *belonging* – its relation to our sense of connectedness and our social and cultural context (12).

Occupation can be viewed as describing and making meaning of people's doing; therefore, the meaning-making of *doing* is when persons are engaged and performing activities or occupations (12,18,19). Doing involves personally meaningful occupations, whether expressed overtly or implied tacitly<sup>3</sup>. Hence, it is beyond physical movements or actions (18) since it includes cognitive and mental activities. Doing can distinguish occupational therapists from other professions as they apply an occupational perspective when assessing how a person performs an occupation and interacts in the environment (15). Even so, Wilcock's research implies that occupation is beyond doing; hence, that occupation belongs to the person's past, present, and future (15). Thus, doing occupation can be considered entangled with *being* as it concerns a person's connectedness and situatedness: their *being*.

The multifaceted concept of '*being*' is a central theme encompassing various dimensions, including personal states, self-perception, and engagement in thoughts and reflection (12,18). A reflection is if we can engage in *doing* occupations without the experience of *being*? Although this may not always be reflected upon, *being* is an intangible concept regarding what we feel when *doing* something, how we perceive and understand ourselves as occupational and human beings, and how we engage ourselves in our thoughts and reflections – to *be* (12,15,18,19). In today's occupational therapy discourse, the concept of *being* encompasses three senses: 'being as essence', 'being as entity', and 'being as existing' (18), illustrating its multifaceted concept. Furthermore, discussions revolve around whether being is grounded in consciousness and creativity (12,18). Wilcock denotes that consciousness is "necessary for engaging in complex occupational behaviour", while creativity serves as "a driver for biological needs for expression" (9, p. 237). In addition to consciousness and creativity, there are also discussions pertaining to our roles and cultural aspects. This encompasses assigned and chosen roles and the influence of our cultural heritage, collectively contributing to our self-perception (18). Thus, our varied experiences and sense of being can be related to contextual factors and environments where we engage in occupations, influenced by our self-perceived roles, awareness, and creativity.

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<sup>3</sup> Overtly: something is done openly and clearly e.g., saying something out loud. Tacitly: something is understood or implied without being stated through hints, body language or context.

*Becoming* relates to change and development, a process with ongoing progression across individuals' lives (12,18,20). Wilcock defined becoming as "to become (someone different), to grow, for something to come into being" (6, p.148), as well as it reflects a person's self-concept and self-creation (6). However, becoming does not have to yield a positive outcome where development is seen as a measure. Wilcock explains that becoming encompasses a broader perspective, acknowledging that people go through various experiences and changes that may not always lead to what traditionally is considered a development or improvement (18). Changes can be neutral or setbacks, although it is still a process. Thus, the concept of 'becoming,' as discussed by Wilcock, encompasses not only experiencing challenges and seeking new experiences but also includes the management and maintenance of aspects of one's life (10). Thereby, it reflects an ongoing process of adapting to changing situations. What we do in our everyday lives (possibly to manage or maintain something) creates new experiences, influences our becoming and thereby our future – becoming highlights the complexity and diversity of human experiences.

*Belonging* is commonly associated with interpersonal relationships, social interactions, and a sense of being part of something (12,18,21). It involves feeling connected to people, places, and communities, making it a crucial aspect of human occupation. Hence, belonging is about feeling connected to somewhere, someone, or something. Within occupational science it is often explored how occupations contribute to a sense of belonging and how social factors impact engagement in meaningful activities (12,18,21).

In summary, these four perspectives form a holistic framework for understanding the complex dynamics of human occupation (12,15,19). Later in this thesis, I will explore all four perspectives' relevance to healthy ageing, the psychosocial work environment of home care staff, older adults' situation when receiving home care services, and reablement. Additionally, I will critically explore how these perspectives can provide new insights and contribute to the evolution of reablement.

## **2.1.2 Occupational Performance**

An occupational perspective that will be evident later when presenting the study's designs and outcomes in this doctoral project is *occupational performance* (Chap. 4–6). Occupational performance involves the dynamic interaction between an individual's engagement in an occupation and the specific environment where that occupation occurs; it is the actual execution of an occupation in a specific context (11). However, the performance of an occupation should not be viewed as a single entity; instead, it is a multifactorial aspect concerning the level of importance the occupation holds and the degree of satisfaction it brings to the individual. Additionally, the concept of occupation is not restricted to performance, meaning that we do not have to *perform* an occupation to *have* an occupation (11).

Occupational performance is intricately linked to the four perspectives: doing, being, becoming, and belonging. While performance can be straightforwardly understood in relation to doing (e.g., doing = performance), it is also tied to our sense of connectedness and belonging within the context where we are performing these occupations. Thereby encompassing the aspects of being and belonging. Moreover, performing and engaging in occupations can serve as a strategy for our continuous growth and development in becoming. For instance, we might modify our doing of activities to become more satisfied with our performance or assume new or previously held roles as a means of becoming.

Since this thesis extends its focus beyond just occupational performance for older adults, it also explores occupational engagement and enabling occupation, concepts I will emphasize in the forthcoming discussion within Chapter 6.

### **2.1.3 Occupational Engagement**

The construct of occupational engagement relates to how individuals occupy themselves or engage others to participate in meaningful and purposeful occupations (11). In essence, occupational engagement entails active involvement or participation in meaningful and purposeful occupations, significantly contributing to a person's well-being and quality of life. In occupational therapy, occupational engagement is considered a therapeutic approach aimed at supporting persons to develop, maintain, or regain the necessary abilities to participate in meaningful occupations (12). Engaging in occupations that hold personal meaning and significance can positively impact an individual's health (12). Furthermore, occupational engagement is crucial in enhancing our sense of 'doing', 'being', 'becoming', and 'belonging'.

### **2.1.4 Enabling Occupation and Health**

To support occupational engagement, we must also consider the concept of enabling, another core construct within occupational therapy. Occupational therapists strive to empower and enable people to engage in occupations to foster and advance their health and well-being (11). Enabling occupation emphasizes the importance of empowering individuals to engage in occupations through a person-centred<sup>4</sup> and holistic approach, intending to enhance a person's well-being and quality of life. By recognizing people as occupational beings, this approach emphasizes the need to utilize and enable occupation to promote health (12). This perspective extends beyond the

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<sup>4</sup> In this thesis, the definition of a person-centred approach is aligned with McCormack and McCance description: "a philosophical underpinning of health-care systems that places people at the centre" (172). . It centers on recognizing and respecting the individual and their perspective, preferences, and values in decision-making and interactions. Applying the word 'approach' instead of 'care' signals a broader concept that is not only related to healthcare, as person-centred care.

individual, embracing the development of supporting environments for all citizens. As Wilcock points out: “what people do, affects their health and well-being” (6, p.458).

Promoting health through occupation involves enabling individuals to develop, maintain, or regain their abilities to engage in meaningful occupations within the specific environment. Health promotion is a process that empowers people to gain greater control over and enhance their health (6). For older adults, maintaining their physical and mental abilities and engagement within their homes and communities is essential for sustaining health and well-being. Occupational therapy plays a central role in enabling older adults to participate in and engage in wanted and needed occupations while addressing environmental factors to support their ability to age in place. However, several other professions, such as physiotherapists, registered nurses, and nurse assistants, also play an essential role in facilitating ageing in place.

## **2.2 Ageing in Place**

The multifaceted concept of Ageing in Place (AIP) can be viewed as a phenomenon and philosophy that older adults can continue living in their homes and communities while feeling safe, comfort, and independence, irrespective of their age, abilities, or income (22–26). The World Health Organization's (WHO) definition of AIP encompasses the provision of appropriate services and assistance, focusing on preventing or delaying transitions to dependent facilities, such as nursing homes (11). Recent developments in the AIP definition also underscore the significance of relationships in social and environmental settings, emphasizing the importance of involving community-based services (28). Home care is pivotal in enabling older adults to continue living in their homes instead of moving into nursing homes, often aligning with the personal preferences of many older adults (29). However, to truly enable AIP, home care services must offer and deliver timely, appropriate, and tailored support when needed. Failure to do so could lead to a deprived situation where older adults risk losing their capabilities as they have activities removed from their daily routines by home care staff.

Furthermore, inequalities such as socioeconomic factors, norms, and social influences affect the opportunities and abilities of older adults to AIP (30). As we look ahead to the challenges in enabling AIP, it becomes evident that there is a risk for AIP to deteriorate in the upcoming decade due to the changing population pyramid, characterized by a significant increase in older adults, especially in regions like Europe, eastern and south-eastern Asia, as well as in North America (1,31). In Sweden and across Europe, the declining health and social care workforce presents a challenge in providing for the needs of older adults, creating a gap between those needing support and those who can deliver the support (32). Policymakers recognize the importance of promoting good health as people age to reduce the demand for healthcare and long-term care services (31). As a result, innovative approaches that empower older adults to maintain or enhance their abilities while optimizing their need of support must be explored. Thus, there is a need for substantial initiatives to transform how health and social care at home is provided to facilitate AIP.

### **2.2.1 Healthy Ageing (in Place)**

Besides understanding AIP, I consider it valuable to acknowledge the approach of healthy ageing. Although recognizing the need to promote good health, governments must take concrete actions to improve older adults' lives and enable AIP. In 2020, two key reports regarding healthy ageing were released: The WHO report entitled "Decade of Healthy Ageing: Baseline Report", a strategy and action plan on ageing and health (2), and the United Nations (UN) "UN Decade of Healthy Ageing: Plan of Action 2021–2030", outlining a 10-year collaboration plan to achieve the goal of healthy ageing (1). These two reports address how evidence-based approaches can be applied to support older adults' intrinsic capacity and functional ability, thereby enabling healthy ageing.

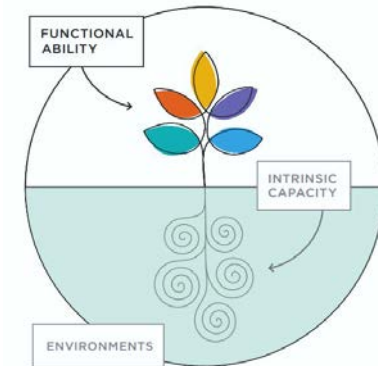
### 2.2.1.1 Defining Healthy Ageing

*Healthy ageing* is an approach and theory that is gaining ground after previous theories of *successful* and *active ageing*. Definitions of healthy ageing come in various shapes. However, this thesis frames it in accordance with the definition by WHO: ‘the process of developing and maintaining the functional ability that enables well-being in older age’ (29). A uniform understanding of the included components in the definition is necessary to avert misinterpretation. Therefore, I will clarify the two components: *functional ability* and *well-being*.

According to WHO, functional ability is a complex system where a person’s *intrinsic capacity* and *environmental characteristics* are interconnected and intertwined (2). *Intrinsic capacities* refer to the person’s physical and mental capabilities and are a construct aligning with the continuous individual ageing process; hence, evolution occurs over time (1). Applying an intrinsic capacity construct also changes how we view a person’s needs, moving from a disease-

focused and reactive approach towards a preventive, counteractive, and restorative intervention approach. By focusing on intrinsic capacity, we can be more responsive to the individual’s needs (33). The *environmental characteristics* form our context, including (but not limited to) our home, community, and broader society, as well as people, buildings, attitudes, values, social systems and services in these environments (33). The combination of our intrinsic capacities and our environment determines how we interact with the environment, forming our functional ability (Figure 1) (2). The environment can be either an enabler or a barrier for what people need, value, and find meaningful to do in everyday life or who they want to be. When the conditions are balanced, people have the possibility to grow. Therefore, we must consider both the intrinsic capacities and the environment to enable healthy ageing and support older adults in their effort to maintain or regain functional abilities. However, the theoretical core of healthy ageing is more complex than functional ability; it is a multidimensional concept that encompasses various aspects of an individual’s life and well-being when growing older (2). Thus, healthy ageing is a holistic concept that aims to optimize older people’s overall well-being and quality of life as they age (1,2,34).

Having explored the facets of functional ability, I now turn my attention to the equally vital aspect of *well-being*.



**Figure 1.** WHO’s illustration of components to enable healthy ageing.  
Source: Decade of healthy ageing: baseline report. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO

*Well-being* is a complex phenomenon with a holistic approach integrating body and mind. Well-being can be about positive emotions and is associated with a person's perceived ability and capability to participate, self-perceived health, access to essential resources (such as food, shelter, and income), longevity, and healthy behaviours (12,35). Several definitions of well-being relate to health and human potential and describe various dimensions of human functioning and thriving (22,36,37). Although a great variety of definitions exist, in this thesis, I will proceed from how WHO presents the concept:

Well-being is a positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic and environmental conditions. Well-being encompasses quality of life and the ability of people and societies to contribute to the world with a sense of meaning and purpose. (35)

Well-being and health have strong links to occupational therapy interventions, where occupational engagement and meaningful activities are rooted in empirical evidence (36). What people do in their everyday life influence their health and well-being (12,36). Research has shown that well-being for older adults correlates with belonging and connectedness, social integration, supportive and rewarding relationships, volunteering, and engaging in enjoyable leisure activities (36). Furthermore, it is important to consider how the well-being of home care staff can be influenced by organizational and psychosocial working conditions, which may have implications for the older adults they care for but also for the health care system (38).

#### *2.2.1.2 Healthy Ageing and Home Care Services*

According to the UN, the interaction between the intrinsic capacity and the environment will “determine whether people can be and do what they have reason to value” (20, p.7) – highlighting that the interaction between the person and the environment reflects their possibility of healthy ageing. The intrinsic decline when ageing can be smooth but it can also include setbacks and recovery processes (34). Reports have indicated that 15–35% of people aged +75 in Europe need support to conduct activities in their daily living (34). To identify what each unique older adult needs to maintain or regain their functional abilities, they must be assessed through a holistic and person-centred approach. The assessment should also focus on the intrinsic capacities and the environment in which older adults live to determine and provide individualised support in everyday life. The environment will include enablers or hinders that influence an individual's capacity to engage in activities. Thus, the context where we age matters. It matters in terms of understanding each person's preferences and the significance of the environment (17).

WHO stresses the need to provide home care services to enable healthy ageing in place, in accordance with older adults' preferences, when their capacity decreases; this entails



being person-centred (2). WHO present four action areas to optimize and facilitate functional abilities: change our view on age and ageing; that communities provide support to promote older adults' abilities; strengthening the integrated person-centred care and aligning it with the older adults' needs; and ensure that those who need get access to long-term care (2, p.xiii). These action areas align with how home care must change to meet the present and future challenges of providing adequate and timely support to older adults. The home care system must acknowledge that becoming old is not equivalent to a life-long need for support, that older adults' abilities should be disregarded, or that they do not have needs. When receiving adapted support it could rather contribute to a feeling of having meaningful occupations during their days. However, it is equally important that those who need support, or want to move to nursing homes, receives the support and care they wish for.

In summary, several actions must be taken to facilitate healthy ageing and enable older adults to age in their homes. One of them is to gain more knowledge by evaluating interventions that respond to older adults' needs. Another is to enable older adults to age in place by supporting them to maintain, regain or develop their functional ability and strengthening their autonomy, interactions in their social environment, and participation in everyday activities. Furthermore, when needing support, it must be appropriate and balanced to enable healthy ageing. Additionally, home care staffs' collaboration with healthcare professionals is vital to enable AIP. However, in what capacity can home care services enable AIP? To understand the setting, I will situate ageing in the context of Europe and Sweden.

## **2.3 Ageing in Europe and Sweden**

### **2.3.1 Ageing in Europe**

The population of older adults in Europe is vastly increasing. Over the next 25 years, the population aged 65 or older is projected to increase by 41%, from 92.1 million to 130.2 million (6). Within this group, those aged 80 or over will increase from 27 million to 50 million (6). The growing size of this population group poses challenges for healthcare and social care systems throughout Europe. Numerous European nations are already confronted with the dilemma of adapting their social policies to effectively address the requirements of today's elderly care, owing to the significant prevalence of older adults in their populations (39). Given these demographic shifts, and if healthy ageing should be a sustainable vision, the importance of home care becomes increasingly evident.

Home care is a cost-effective strategy for enabling older adults to continue living in their homes (40,41). The European Commission has an important role in coordinating social policies and giving autonomy to national governments to develop social welfare according to their needs (39). The development and provision of social services, such as elderly care and specifically home care, differ broadly between European countries (40). However, one aspect most countries share is the challenge of the availability of home care staff due to staff shortages and declining working-age population (6). In 2012, the ratio between persons over 65+ and those of working age was 1:4, but it is predicted to be 1:2 in 2050 (6,41). Hence, due to a decreasing younger population, there will be a lack of care workers such as nurses and care assistants. Since the ageing population will significantly increase while the availability of home care staff will decline – this will create a gap between those in need and those who can provide support. It is well known that the health and social care system is already burdened with challenges in meeting the needs of our ageing population and providing sustainable, safe, and high-quality support (40,42,43). The EU report on Long-Term Care emphasizes the importance of developing an economically sustainable strategy for long-term care, with strategies that emphasis investments in healthy ageing policies, health promotion, prevention, and technology use to delay the need for care (6).

While the situation in Europe provides a broad perspective on social policies and challenges within long-term care, it is essential to narrow the focus to the Swedish context for this thesis.

### **2.3.2 Ageing in Sweden**

The older adult population is also on the rise in Sweden; today, 2 out of 10 million persons are older adults (37). Although the increase in the population aged 65+ will be lower than the EU average, the population of people aged 80+ will rise by almost 55% from 2020 until 2030 (37). Today, approximately 200,000 of those aged 80+ receive

home care services, and from 2023, the need for long-term care for this group will increase by 50% by 2030 (37,44). In Sweden, if you cannot or have difficulty meeting your needs in your everyday life, you have the right to receive support. The Swedish Social Act provides a content and mission and a national law framework constituting goals, values, and principles for the municipalities' social services (45). The Swedish Social Act informs about rights and obligations, such as that citizens have the right to dignified living conditions and that the municipalities must provide income support and health and social care (46). The national law framework enables municipalities or regions who are responsible for welfare services such as elderly care and healthcare, to have a high degree of freedom to develop appropriate methods and work approaches for the specific context to enable a person-centred approach (45,47). A law framework can be perceived as a flexible system enabling municipalities to analyse and design support adapted to the individuals in their specific context. However, it also creates a diversity of what services a citizen in the municipality can expect, including the scope and content of the services and the quality of the provided care (45). In 2005, a parliamentary inquiry concluded that the ambiguity regarding the law led to uncertainty about the scope of the municipalities' mission (45). The inquiry also emphasized that the ambiguity might lead to uncertainties regarding what services the citizens could demand from the municipality and what requirements the municipality could impose on employees in the public sector (45). Hence, the width of flexibility can constitute uncertainties regarding requirements or meeting demands.

The Swedish Social Services Act is not exclusive to elderly care, but in this thesis, elderly care is the exclusive focus. According to chapters 2 § 1, 3 § 3, and 4§ 1 in the Social Services Act, older adults can demand to receive home care support that "ensures a reasonable standard of living" and that the provided support should be "of good quality" (46). This vagueness in the law raises critical questions about what constitutes a 'reasonable standard of living' and 'good quality' support and allows room for interpretation and application of the services. Whether the terms uphold the older adults' expected standards or if they are sufficient for the person receiving the care makes it a complex aspect of how the law should be interpreted. Does today's home care services ensure a reasonable standard of living of good quality? Moreover, how does this align with healthy ageing? Although I do not have the answers to these questions, they are essential to reflect upon in relation to how healthy ageing is facilitated.

### 2.3.3 The Regional and Municipal Organization of Healthcare and Home Care in Sweden

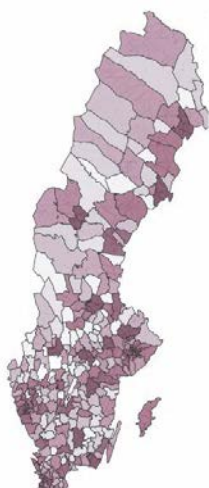
Sweden has 21 self-governing regions (Figure 2<sup>5</sup>) and 290 administrative units (a.k.a. municipalities) (Figure 3<sup>6</sup>). The regions are responsible for providing health care services via hospitals and primary care units. At the region's primary care units, persons can be examined, monitored, cared or treated for most common conditions and illnesses (48). Healthcare professionals working at the primary care units are often medical practitioners, nurses, physiotherapists, occupational therapists, speech therapists and dentists. Although stationed at a unit, healthcare services are provided in the homes of, e.g., older adults.



Figure 2. Picture. Sweden with the 21 regions where Stockholm is marked.

The municipalities offer various care services such as home care, nursing homes, housing with specialized services for people with disabilities, and day-care activities (32). Thus, the municipalities organise and provide home care services for older adults. The service is subsidised and often provided by both public and for-profit organizations. However, the amount of public and for-profit organizations differs between the municipalities, where some only have a public organization, some a blend, and others a

Figure 3. Picture. Sweden with the 290 municipalities.



majority of for-profit organizations (49). In addition, the healthcare professionals accessible via the municipalities differ, but occupational therapists, physiotherapists and registered nurses are typical. One exception to this rule applies to the region of Stockholm. In 25 out of 26 municipalities, healthcare professionals provide home healthcare but are employed by the region<sup>7</sup> and not by the municipality (44). Compared to in other municipalities in Sweden, this can potentially pose a risk of unjust prerequisites since multi- or interprofessional collaboration for those needing support at home can be more challenging in terms of team work to align the care and support. Hence, when supporting older adults in their homes, occupational therapists in

Stockholm are stationed at the region's primary care unit. They usually work in

<sup>5</sup> Source: Source: SWE-Map Kommuner2007.svg Attribution: Lokal\_Profil

<sup>6</sup> Source: scb.se

<sup>7</sup> Healthcare professionals employed in the municipalities are working in nursing homes for older adults.

interprofessional teams with other healthcare professions such as physiotherapists and registered nurses, and sometimes also speech therapists and dieticians.

The role of occupational therapists in Swedish home rehabilitation is to enable individuals to participate and engage in wanted and needed activities in everyday life. The work includes assessing a person's capabilities when they are interacting with the environment and, together with the person, identifying what the person experiences as barriers when performing or participating in occupations. To promote engagement in wanted or needed occupations, the occupational therapist can adapt to the environment, provide physical or cognitive aids, or adapt how the person interacts with the environment. The primary objective is often to support people to maintain or enhance necessary physical, cognitive, mental, or social skills in various activities. The work is often focused on rehabilitation, but the vision is to work more preventative. Their work is legislated by the Health and Medical Care Act (50). Occupational therapists have extensive skills and knowledge about human occupations and occupations relation to health. Furthermore, they are educated in physical and cognitive functions, behavioural science, pedagogy, psychology, and sociology.

#### **2.3.4 The Swedish home care system**

At the national level, policies and directives are set through legislation and economic incentives, while priorities and decisions mainly are decided on region and municipality level (37). The Social Services Act is a legislation that covers all forms of elderly care, mainly home care and nursing homes, ensuring that older adults can receive assistance to continue to live at home and have a life according to a reasonable standard(46). Since the Swedish municipalities' population density and characteristics differ, so does the financial sustainability (37). Although enabling so resources can be distributed in accordance with the populations need, it can also create a risk for inequalities. Home care services aim to cater for a dignified life and a sense of well-being, aligning with the ageing-in-place philosophy. However, in the current organization of home care, the emphasis lies on delivering services and performing activities *for* older adults rather than empowering them to engage and participate in these activities by doing them together. Consequently, home care services risk being detrimental and inadvertently diminish older adults' independence, as they are deprived of opportunities to engage in activities they otherwise might have if they received tailored support (51,52). This rather task-oriented<sup>8</sup> approach has gained more focus in today's social care services for older adults, partly driven by the principles of the new public management (NPM) approach. NPM emphasize time efficiency, which often results in enhanced micro-management

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<sup>8</sup> Task-oriented: focus is to conduct specific tasks or activities for the older adult rather than focusing on the older adults need to perform, participate or being engaged in the activity.

and cost reduction, particularly concerning staff resources (4,53), rather than prioritizing the individuals (customers) specific needs. Thus, it may not be considered a sustainable method of providing home care or meeting the needs of older adults. A task-oriented, time-efficient system fails to consider a person's needs regarding resources, such as staff and time resources, necessary for maintaining, regaining, or developing their abilities and autonomy. Instead, it increases the likelihood of home care becoming a permanent necessity for ageing in place. This task-oriented approach is not sustainable for older adults, the staff, or the organization and is misaligned with the principles of AIP and healthy ageing.

Home care services must provide personalised and tailored support to facilitate and enable ageing in place and promote healthy ageing. They should have the necessary resources and time to encourage and empower older adults to independently engage and participate in everyday activities. Additionally, it is essential that these services provide support in activities that older adults find meaningful, thereby enhancing their overall participation. However, organizational and regulatory changes over the past few decades have increased the strain on home care staff to continue to provide a sustainable service, impacting their psychosocial work environment (42). Today's comprehensive home care service includes maintenance of the household, assistance in everyday activities and providing health and social care services (54,55). Additional factors contributing to a higher perception of strain are increased workload and less flexibility during their days, which makes it more challenging to adjust the work according to older adults' daily needs (3). There is also a divergence between the number of older adults needing the service, the available workforce and resources, and the time for visits (43).

Consequences of the expanded amount of tasks at work (e.g., diversity of activities at the older adult, administrations, transportation) and organizational restrictions (such as increased micro-management, strict time management and therefor, less possibility to influence one's work) have led to a higher workload and requirements of higher competencies to provide the anticipated, adequate, and proficient care (4,54–56). Employing staff with appropriate competencies has also been challenging in the elderly care sector, where the shortage of personnel is problematic. Being employed in home care in Sweden requires limited or no formal education<sup>9</sup> pertaining to health and care (57), and the employment is either as a nurse assistant or care assistant. It has been challenging to distinguish between the skills required for receiving the title of nurse assistant or care assistant, where the employer could decide based on the person's previous skills or education. However, since July 2023, there has been improvement; for

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<sup>9</sup> Formal education is usually equal to secondary school level (7,8).

instance, nurse's assistant became protected as a professional title and now requires a specialized education (58). This step was taken to ensure minimal competencies, as a way of securing the quality of health and care provision. Even so, as of today, home care services are highly interpersonal which means that the quality of the service is dependent on the skills of the staff, but also the availability of staff, working conditions, and how the service or support is structured (6).

The psychosocial work environment and organizational structure are a multifaceted phenomenon and are significantly associated with the health and well-being of care staff in different settings (5,59–62). The consequences of job strain for home care staff do not only affect the individual but also, subsequently, the older adult receiving the service. The impact can result in unattainable relationships between older adults and staff and reduce the quality of the provided care, potentially reducing the quality of life of older adults (63–65). Hence, the composition and balance of the psychological work environment and organizational structures, empowerment, and good management are essential to prevent physical and psychological ill-health and increase job satisfaction for home care staff (4,5,54). Although these relationships have been established, home care staff are still faced with work-related issues such as role conflicts, deficient social support and struggling with quantitative job demands (such as time pressure and workload). These issues contribute to increased job strain and impact the employee's well-being, causing health problems such as insomnia, increased incidences of stress and burnout, psychological disruptions and long-term sick leave (5,56,64,66–68). The consequences of job strain affect the individual and negatively impact the organization regarding high turnover rates (4,64). Subsequently, older adults receiving the service are impacted by unattainable relationships with the staff, reduced quality of received care, and the potential for reduced quality of life (63–65).

Occupations that people perform in everyday life can be seen as fundamental components of our identity since what we do informs our identity. Likewise, a person's identity influences the occupations that a person does and how they do them over time (69). However, if home care is needed to facilitate healthy ageing, but we already know we have challenges today and potentially more significant challenges in 25 years, how should we organise home care to enable AIP? Perhaps the provision of home care must be re-designed and evolved to facilitate AIP, preferably with healthy ageing in place. Maybe this re-design must take place now to respond to future challenges knocking on our door today.

To enhance the well-being of older adults and promote healthy ageing in place, both the healthcare system and home care organizations need to explore novel methods so those who want can continue to live and thrive at home. The development of organizations with sustainable working conditions is crucial for promoting the well-being of personnel and enabling ageing in place. The development and evaluation of innovative

methods, such as reablement, can facilitate a change in how home care services are organised and their ability to address the needs of older adults, potentially fostering staffs' growth and well-being.



## 2.4 Reablement

In 2013, the European Commission launched the Social Investment Initiative, recommending member states to implement reablement services (70). Reablement is a rehabilitation approach with a new narrative and work approach for health and social services provided in the person's home. Widespread research programmes and positive outcomes have positioned reablement as a new paradigm in social care, challenging the current negative discourse concerning ageing (71). The philosophy of reablement is that the home care staff (and other professionals) support and collaborate *with* the older adult in doing activities in daily life to enhance their functioning and maintain or increase their independence (10,72). Hence, reablement contrasts with the current work approach, where home care staff does the granted activities for the older adult, thereby reducing the number of activities the older adult could potentially perform on their own if receiving tailored support.

Research indicates that reablement can contribute to an increased perception of quality of life for older adults and their significant others (73,74), increase older adults' independence in doing activities in everyday life (especially in regard to personal activities of daily life (pADL) such as feeding, dressing, bathing), and increase their physical activity and health (75). Additionally, when applying reablement, older adults can reduce their need for home care and health care services (76) and increase the possibility of continuing to live at home, prospering from the opportunity of healthy ageing in place. Research has also focused on health care services utilization and cost-effectiveness (77–79), as well as how the work approach of reablement influences the home care staff. In this regard, outcomes show that home care staff perceive to gain a framework for cooperation (80), experiencing increased work engagement, and building relationships with older adults (81).

Even so, there are uncertainties and criticism of the evaluated effects, e.g., studies indicating no difference in the outcome between a reablement intervention and standard services (82) and limited evidence that interventions targeting pADL reduce the dependency on home care (82). There are mixed outcomes if reablement improves the safety, physical functions, or health-related quality of older adults' lives (82–84). However, the mixed results may stem from the complexity of conducting and evaluating reablement programs. These outcomes are highly dependent on the specific context and the individuals involved in the research program, making it a complex intervention.

A significant body of research conducted during the 2010s indicates that the implementation of reablement in health and social welfare, involving interprofessional teams, comprehensive assessments, and goal-oriented support, leads to a reduction in the dependency of older adults on home care (7,85). This approach also increases job satisfaction among home care staff (72,79).

The scientific field of reablement has thrived, involving many researchers across the world today, this has resulted in an international network with researchers – ReAble (86). This prerequisite enabled the conduction of a Delphi-study, published in 2020, that proposed an international definition for reablement:

Reablement is a person-centred, holistic approach that aims to enhance an individual's physical and/or other functioning, to increase or maintain their independence in meaningful activities of daily living at their place of residence and to reduce their need for long-term services. Reablement consists of multiple visits and is delivered by a trained and coordinated interdisciplinary team. The approach includes an initial comprehensive assessment followed by regular reassessments and the development of goal-oriented support plans. Reablement supports an individual to achieve their goals, if applicable, through participation in daily activities, home modifications and assistive devices as well as involvement of their social network. Reablement is an inclusive approach irrespective of age, capacity, diagnosis or setting. (89, p.11)

Although a definition has been provided, concerns persist regarding the structure, content, and intention of reablement, requiring more substantial evidence. Recent research has highlighted the lack of theoretical frameworks that can provide structure and guidance for the application of reablement, as well as regarding the information on how goal-oriented support plans are developed and implemented (10,88–90). Presently, few reablement programs clearly define the theories they are based on and how they apply goal-setting strategies to identify activities that the older adult wants or needs to engage in (7,91,92). To foster the evolution of reablement, it is essential to explore underpinning theories and concepts which founds reablement, thereby explaining its need and nature. Additionally, researchers should provide clear descriptions of the goal-oriented support process and choice of theories or models that underline the goal-setting assessment tool. Enhanced alignment among reablement programs would facilitate the streamlining of processes and allow for meaningful comparisons between national and international programs. Moreover, it is essential to consider the evaluation methods applied to reablement programs since these would significantly impact the reported outcomes. These aspects demand greater attention to comprehend the full potential of reablement.

Previous research has acknowledged that reablement programs would ideally provide occupation-based services, where occupations are the core of both the intervention and the desired outcome (93). However, up to this point, no published research has confirmed this statement. Furthermore, occupational therapists (often in collaboration with physiotherapists) are widely recognized as essential members of reablement teams. As mentioned earlier, occupational therapists possess expertise in the domain of occupations and extensive knowledge regarding how engagements in occupations influence individuals' health and overall well-being (12). This knowledge is of the essence

for other members of the reablement team when delivering reablement services. While occupational therapists already today collaborate with home care staff, there exists a need to develop and strengthen this collaboration to facilitate the effective provision of reablement services. Even so, for reablement to evolve, it requires all stakeholders' collective efforts. To gain global acceptance, reablement must adapt to the specific and unique contexts it encounters. However, there is potential for the overarching concept to be refined and made more accessible to a broader range of cultures than it currently reaches.

#### **2.4.1 Reablement in Sweden**

Reablement is considered a new approach in Sweden and has so far been firmly established (51,94). However, reablement can be considered as a further development of what is known as everyday rehabilitation (*vardagsrehabilitering*) in Sweden. Everyday rehabilitation intends to assist and support persons in their everyday activities and has been promoted as a practice for home care staff since the early 2000s. Nevertheless, a challenging aspect of everyday rehabilitation is the absence of a clear definition and supporting evidence. A Swedish review from 2014 found no scientific articles from Sweden concerning everyday rehabilitation, demonstrating the scarcity of evidence in the field (95).

Reablement and everyday rehabilitation share some similarities and are occasionally used interchangeably. However, distinct differences are relevant to consider in the forthcoming discussion. In comparison to everyday rehabilitation, reablement places a stronger emphasis on a coordinated interdisciplinary team, utilizing goal-oriented support, being time-limited, and aims to reduce the need for ongoing support. While research on reablement has started to emerge in Sweden over the last five years, more work is needed to establish a solid evidence base.

Perhaps Sweden can take advantage of the transformative potential that reablement brings and align with this approach. Therefore, it may be an appropriate time to evolve with a new conceptual framework and initiate a new beginning for how home healthcare, in collaboration with home care services, can deliver a holistic and person-centred approach aimed at enabling ageing in place and, potentially, be proactive and facilitate healthy ageing.

#### **2.4.2 A Multifaceted Transformation in Sweden**

During the last few years, a change has begun to occur in the elderly care sector in Sweden at different societal levels and policy decisions – how to facilitate for older adults to continue to live at home by structuring the organization of elderly care and increasing the focus of incorporating rehabilitative approaches. As discussed in Chapter 2.2, the UN and the WHO advocate a global healthy ageing strategy (1,2). In parallel, the

European Commission promotes that new models must attend to individual needs to improve satisfaction and well-being to enable individuals to continue to live at home for as long as they wish (37). In Sweden, the Swedish Association of Local Authorities and Regions (SALAR) and the Swedish National Board of Health and Welfare (SNBHW) recently (2019) presented a new Swedish strategy called '*integrated and person-centred care*' (IPCC), which aims to enhance and strengthen the collaboration between caregivers as well as emphasizes health-promoting strategies (96,97). In addition to the new strategy, SNBHW published a report in 2023 containing an overview of rehabilitative approaches in care work in Sweden conducted in the person's home. The report intends to guide the future work of rehabilitation at home (8). Below, both approaches and reports are presented.

#### *2.4.2.1 Integrated and person-centred care in Sweden*

In 2019, SALAR, in collaboration with the SNBHW, promoted a new vision to reconstruct healthcare delivery, covering the whole spectrum of care providers, from regional to municipal. The new approach, IPCC (96,97) intends to strengthen the collaboration between primary care, hospitals, and municipal interventions and emphasize that care must be based on the individual's needs. In 2021, the vision was officially launched. At the beginning of 2023, SALAR and the Swedish government agreed to introduce and financially support the implementation of the IPCC vision (97). The approach is a co-creation process between the healthcare sector and the individual, with an emphasized focus on a person-centred and proactive approach, strengthening integrated care and prime health promotion (97). IPCC is constructed on the concepts 'person-centred', 'cohesive', 'health promoting', and 'proactive/preventative/rehabilitation'. Hence, IPCC's intention is similar to the concepts of ageing in place, healthy ageing, and reablement.

#### *2.4.2.2 Policies about rehabilitative approaches and reablement in Sweden*

In parallel with the transition toward IPCC in 2019, the SNBHW assessed the knowledge resources required by municipalities for home-based rehabilitation. This initiative culminated in the release of the report titled 'Healthcare at Home – Knowledge Support for Person-Centred Care and Rehabilitation', in April 2023 (8). Rehabilitative approaches are considered general support efforts, aiming to maintain or strengthen health and functional ability, that activities are conducted based on the person's condition, and that the home care staff supports the person to be independent (8). The report acknowledges reablement for the first time in a Swedish policy document. It is referred to as a rehabilitation approach grounded on research and evidence, which Study II has contributed. SNBHW concludes that:

Organizations that encompass all components of the reablement definition have the opportunity to systematically compare their results with other organizations performing the work in the same manner. The definition also fosters future research on reablement by creating conditions for larger study populations when results from different organizations in various municipalities can be consolidated<sup>10</sup>. (70, p.62)

Additionally, another governing body, SBU – Swedish Agency for Health Technology Assessment and Assessment of Social Services, has evaluated and commented on the recent systematic review of Buma et al (98) "Effects on clients' daily functioning and common features of reablement intervention". They conclude that reablement programs must be described more clearly to identify components that guide the development of new reablement programs, which would enhance the understanding of the construct, process, and content of reablement (99). It thus appears that reablement is beginning to gain attention in Sweden and is seen as a novel approach. This thesis intends to partially contribute to addressing the need for guidance in developing reablement.

In summary, a multifaceted transformation of elderly care in Sweden has begun to be introduced and implemented, an action well needed. Innovative approaches should be explored and evaluated to better collaborate in enabling ageing in place, with an emphasis on healthy ageing, to evolve how support to older adults is provided. Reablement, in combination with IPCC, can play a role in this transformation and evolution of the Swedish welfare. Furthermore, implementing reablement could facilitate healthcare and home care to increase their awareness of older adults' requirements, enabling them to engage in wanted or needed activities in everyday life to maintain, regain or develop abilities to age in place and promote healthy ageing.

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<sup>10</sup> Translated from Swedish by author.

## 2.5 Welfare Technology

Reablement promotes interdisciplinary team work when supporting persons (87,91). Interdisciplinary teams can be efficient, but it can be challenging to organise and streamline the care and support for persons, especially regarding communication between different stakeholders (100). In the guidelines of IPCC, it is stressed that communication between and within regions and municipalities must be strengthened and developed to enhance the person-centred approach and align the work with the individuals' preferences (97,101). Here, the challenge lies not only in organizational and geographical distances but also in that home care staff and healthcare professionals are working under different legislations (The Social Care Act and the Health and Medical Care Act), which constitute issues for efficient access to journal documentation. Additionally, there is a need for systems that facilitate access of non-sensitive personal data in a swift and convenient between health and home care professionals, older adults, and their significant others. In order to enhance care and services to support older adults, it is essential that right information is available when needed and easily accessible to all parties involved.

Our society is in an ongoing digital development where digitalization is becoming an integral part of our everyday life and is influencing and evolving the provision of health and social care services. The European Innovation Partnership in Active and Healthy Ageing highlights the importance of innovative developments and the usage of *welfare technology* to facilitate healthy ageing (102). Welfare technology is an umbrella concept which includes technologies that contribute to improving lives, security, and promoting the participation and independence of older adults and persons with disabilities (102,103). Welfare technology is central in enabling healthy ageing activities, decreasing dependency of care, and increasing quality of life and well-being (102,104). It is related to, but not limited to, information and communication technology (ICT), e-health and m-health. The concepts of welfare technology mirror the Nordic welfare state and services, while the broader concept of Ambient/Active Assistive Living (AAL) is commonly used in the European Union (104). In this thesis, the concept of welfare technology is applied to emphasize the Nordic contextual relationship.

Technology has the potential to enhance service quality by personalizing services and promoting users' ability and tailored support. ICT applications and products are highly topical in most research fields today, and initiatives are taken to implement ICT solutions for healthcare professionals, older adults, and their significant others (103,105–107). However, Sweden lags in developing digital services, products, and processes to improve employee work conditions (103). Additionally, the use of digital ICT solutions among healthcare professionals, home care staff, older adults, and their caregivers is declining despite the overall increase of ICT systems in Sweden (32). To enhance the probabilities for a successful implementation of welfare technologies, it has been

suggested that the focus should lie on older adults' wishes and needs rather than their frailty and that technology should facilitate active and healthy ageing (102,103).

Additionally, when developing and implementing ICT applications, the emphasis has primarily centred on enhancing digital skills (103), overlooking the development of efficient digital knowledge management systems. Knowledge management is a way for organizations to organize, store, develop and disseminate information (108). This thesis applies the concept of *digital knowledge management* since it focuses on digitally accessible information. Digital knowledge management can be viewed as an asset, a support, and a mediator, but it must be viewed in relation to other management practices and activities in health care (108). Research regarding digital knowledge management in healthcare settings highlights its importance in enhancing patient care and quality and facilitating employee learning (108). When designing welfare technology products or systems, it is also crucial to consider user needs and the technology's purpose. To increase the acceptance and use of innovative solutions by healthcare and social care professionals, older adults, and their significant others, the information in the technology should emphasize older adults' capabilities over their vulnerabilities (103).

Prior research advocates further initiatives in creating appropriate ICT systems for health care and home care services. Consequently, more attention is required to develop ICT systems that facilitate more sustainable work conditions, particularly for home care staff and healthcare professionals. Integrating technological approaches within reablement programs has the potential to facilitate and streamline the delivery and implementation of reablement (109) while also enhancing the focus of older adults' needs rather than their frailty (103). In addition, welfare technology could have the potential to assist home care staff in providing person-centred care by enabling direct access to information during visits with older adults. Digital knowledge management systems can be of the essence to streamline the intended support and strengthen interprofessional collaboration.

In conclusion, reablement emphasizes interdisciplinary teamwork, which, while efficient, presents challenges in terms of organization and communication. Although national and international guidelines stress the need for improved communication between professionals and those receiving the care and support, access to information can be problematic, hindering effective information flow. Digital knowledge management is essential for efficient information access and enhancing person-centred support. Further initiatives are needed to develop effective knowledge management systems, particularly within the organization of Swedish home care. Furthermore, integrating technology into reablement programs can empower the voice of older adults and strengthen a person-centred approach.

## 2.6 Rational

Elderly care is becoming increasingly challenged due to the growing ageing population and a coinciding decline in the home care workforce. This presents a significant societal issue, with the potential to affect the health and well-being of both older adults and home care staff.

The work environment for home care staff is characterized by strain and challenges, where the staff must balance between addressing the unique needs of older adults while dealing with the demands imposed by the organization. This disparity can result in home care staff taking over activities from the older adults, promoting a non-participative approach. Such a situation could inadvertently contribute to the inactivity of older adults, leading to a downward spiral in which a person-centred approach becomes challenging to uphold. This situation poses risks to the health and well-being of older adults and potentially increases the workload and strain for home care staff.

It is imperative to explore innovative strategies to promote healthy ageing and enable older adults to age in place. Reablement has gained recognition in other countries but is a relatively novel rehabilitation approach in Sweden. Despite a significant increase in reablement research over the last decade, knowledge gaps and ambiguities persist regarding the theoretical foundations and key components that can foster a change in practice and enable comparison of outcomes nationally and internationally.

Furthermore, little attention has been given to the potential benefits of incorporating technology to streamline the reablement process. The ongoing digital progression in society holds the potential for innovative digital knowledge management solutions for interprofessional teams involved in reablement and for the older adults receiving reablement.

As a final point, to advance the evolution of reablement, it is essential to gain new insights into the intertwined processes of providing and receiving home care support. Occupational perspectives can offer a novel and illuminating contribution, shedding light on the complexities of this dynamic process. To promote a more comprehensive understanding of reablement, I will discuss and analyse theories, concepts, and constructs that may be relevant to clarify the necessity, objectives, and structure of reablement. Furthermore, enhancing the understanding of the reablement approach can support the evolution of policies, guidelines, and practice.

Therefore, this thesis aims to problematize and provide insights into the evolution of the reablement approach.



### 3 AIMS

The overall aim of this thesis is to contribute to the evolvement of reablement in home care services using theory, occupational perspectives, and welfare technology to promote healthy ageing in place.

The specific aims for Studies I–IV were:

- I. To explore how home care staff perceive their level of job strain and to examine how job strain is associated with, and to what extent job strain can be explained by, individual and organizational factors of the psychosocial work environment and psychosomatic health factors.
- II. To evaluate the feasibility of a novel reablement program, ASSIST 1.0, for older adults in a Swedish context in terms of study design and outcome measures, as well as the program's fidelity, adherence, and acceptability.
- III. This study has a two-folded aim i) to gain knowledge of how underpinning theories and models can facilitate the implementation of the ASSIST 1.0 reablement program and ii) to explore how the applied theories and models are mirrored in the nurse assistants' reasoning and reflection on their work during the ASSIST 1.0 program.
- IV. To develop knowledge regarding home care staff's user experience of a novel ICT system and gain knowledge of how the ICT system can support digital knowledge management within a home care organization.

## 4 METHODS

The four studies included in this thesis employ both quantitative and qualitative research designs to explore various facets of evolve reablement. These facets include the psychosocial work environment of home care staff, designing and evaluating the reablement program ASSIST 1.0 in home care, and how welfare technology can facilitate interprofessional communication. The combination of methods allows for a comprehensive exploration of the complex context of home care services, as well as identifying barriers and facilitators for implementing a unique reablement program that incorporates welfare technology.

The studies are interconnected, with some building upon others. Study I is a quantitative study describing the conditions of the psychosocial work environment of home care staff, an essential aspect to consider for Studies II and IV. Studies II and III originate from a feasibility study of the novel reablement program ASSIST 1.0, where Study II assess the feasibility of ASSIST 1.0 and Study III explores the underlying theories of ASSIST 1.0 and the staff's experiences with ASSIST 1.0. Study IV is an extension of Study II, specifically focusing on the welfare technology applied in Study II, evaluating the technology's usability and the staff's user experience. Table 1 provides an overview of the four studies, detailing their objectives, data collection methods, and analysis approaches.

The layout of this section begins by describing the origin of each study and its design, which is followed by detailed information about the specific context for the studies and the sampling process. Thereafter, I present the data collection and analysis process for each study, where Studies II and III are merged since they are derived from the same program. Finally, methodological and ethical aspects are addressed.

**Table 1.** Overview of Studies I–IV regarding study design, aim, sampling, participants, data collection and analysis.

| Study           |              | Study I  | Study II   | Study III  | Study IV   |
|-----------------|--------------|--|--|--|--|
| Design          |              | Quantitative<br>Cross-sectional  | Convergent mixed<br>method   | Qualitative  | Convergent mixed<br>method   |
| Aim             |              | To explore HCS's perception of their level of job strain and how job strain is associated with and explained by individual and organizational factors of the psychosocial work environment and psychosomatic health factors. | To evaluate the feasibility of a novel reablement program, ASSIST 1.0, for older adults in a Swedish context in terms of study design and outcome measures, as well as the program's fidelity, adherence, and acceptability. | To explore how home care staff understands and applies the components in the ASSIST 1.0 reablement program, and gain knowledge of how underpinning theories and models can facilitate the implementation of the ASSIST 1.0 reablement program. | To develop knowledge regarding home care staff's user experience with a novel ICT system and gain knowledge of how the ICT system can support digital knowledge management within the organization of home care. |
| Sampling        |              | Convenience  | Convenience  | Purposive  | Convenience & purposive  |
| Participants    |              | Region of Stockholm  |  |  |  |
|                 |              | 5 Municipalities   | 1 Municipality   |  | 1 Municipality   |
|                 |              | 17 Home Care Units   | 1 Home Care Unit   |  | 2 Home Care Units  |
|                 |              | n=226<br>HCS staff member  | n=3<br>SDHCS staff members   |  | n=46 HCS staff members<br>n=1 Home Care Agency Manager<br>n=1 Home Care Agency Coordinator<br>n=1 Home Care Unit Manager<br>n=15 Older adults  |
|                 |              |  | n=17<br>Older adults   |  |  |
| Data collection | Quantitative | Questionnaires regarding the psychosocial work environment   | Questionnaires regarding self-perceived performance, self-efficacy and well-being  |  | Questionnaires regarding usability   |
|                 | Qualitative  |  | Semi-structured interviews<br>Fieldnotes   | Individual semi-structured interviews  | Semi-structured interviews with managers & focus groups with home care staff   |
| Data analysis   | Quantitative | Descriptive and inferential statistics (multilevel regression)   | Descriptive statistics   |  | Descriptive statistics   |
|                 | Qualitative  |  | Qualitative manifest content analysis  | Reflexive thematic analysis  | Qualitative manifest content analysis  |

## **4.1 Study I: Job Strain and Psychosocial Work Environment for Home Care Staff**

The first study originates from a project intending to assess and evaluate the perceived job strain on home care staff. The project was developed between 2015 and 2016 as a reaction to the paradigm shift with regard to ageing in place, enabling older adults to continue to live in their own homes instead of moving into care homes. Previous research had focused on the work environment for staff working in care homes (59,60,67). However, with the paradigm shift in policy and practice regarding ageing in place, it was deemed necessary to also shift the research to focus on and include home care staff. At this time, 2015–2016, research concerning the work environment of home care staff was sparse. Currently, research within this field has significantly expanded nationally and internationally (61,110,111). Even so, there is still a lack of research investigating home care staff's perceived job strain and psychosocial work environment based on assessments with valid instruments on representative groups.

Quantitative data was collected via questionnaires to explore the perceived level of job strain among home care staff and to identify individual and organizational factors that influence job strain levels. For my doctoral project, gaining awareness and knowledge of how home care staff perceived their psychosocial work environment and level of job strain was essential since these aspects can facilitate or hinder the implementation of new work methods, such as reablement, which is the continued focus of the doctoral project.

## **4.2 Studies II and III: The Reablement Program ASSIST 1.0**

The second project that this thesis builds on was developed in 2017–2018 as a response to how home care is provided today in relation to the concept of ageing in place. The project took its stance from a new rehabilitation approach called reablement.

Reablement has emerged within the research and praxis of neighbouring countries of Sweden, such as Norway, Denmark, and England, but also Australia, and New Zealand (112).

In Sweden, home care services must be developed to meet the needs of an expanding elderly population as well as for those providing care and support. Additionally, home care services often become a permanent solution, creating a situation where home care staff does activities that older adults could potentially perform on their own with adapted support. Thus, the design of home care today carries the risk of being detrimental to and inadvertently contributing to the pacification of older adults. The approach of reablement instead focuses on supporting older adults as they participate in activities they want to and need to do. Reablement presents a fundamental shift regarding the standards of home care services in Sweden.

In 2017, no coherent international definition of reablement existed, and it was considered problematic to define its effective ingredients of reablement were (72,85,113,114). Additionally, at the time, no research existed regarding reablement in the Swedish context. Therefore, the project aimed to develop knowledge regarding reablement in the Swedish context of home care for older adults. Additionally, we aimed to explore whether welfare technologies could be applied to enhance the delivery of reablement and to empower older adults, and if so, how that could be done.

Based on the above ideas, a novel reablement program was developed, ASSIST 1.0 (51). ASSIST 1.0 aims to empower older adults to participate in everyday activities by providing tailored support based on goal-setting strategies. The theorised outcome of the program is to increase the perceived performance, self-efficacy, health, and well-being of the older adults (51).

ASSIST 1.0 was the starting point for my doctoral project and is the foundation of this thesis. Therefore, I consider it of essence to clarify its theoretical constructs and components, which will later be placed in relation to how reablement can evolve. Below I present the design, theories, and components of ASSIST 1.0.

#### 4.2.1 The Design of ASSIST 1.0

ASSIST 1.0 is an evidence-based, person-centred program designed to facilitate participation and possible performance by older adults in valued activities in everyday life, both at home and in society (72,114). The program applies an occupation-based<sup>11</sup> and occupational-focused<sup>12</sup> approach and entails a 10-week intervention. Two occupational therapists from the research group were involved in the program, with one being the program coordinator, responsible for the organization and data collection in the control group (CG). The other occupational therapist was responsible for coordinating the intervention. The occupational therapist working with the intervention collaborated with those delivering reablement and supporting older adults in regaining, maintaining, or improving their abilities to perform or participate in everyday activities by identifying engaging occupations.

Compared to many previous reablement programs, the designers of ASSIST 1.0 were all occupational therapists, which led to ASSIST 1.0 being mainly founded on theories and models originating from occupational therapy. However, additional gerontological, psychological, and pedagogical theories are incorporated. The research group considered these theories and models to strengthen the theoretical approach of ASSIST 1.0 and provide guidance in understanding the program's deliverables and clarifying the aims and methods of the interventions.

ASSIST 1.0 is built on three components:

- Goal-oriented support, which is occupation-based<sup>11</sup> and occupation-focused<sup>12</sup>. The theory and strategy for conducting the goal intervention are grounded on the Canadian Model of Occupational Performance and Engagement (CMOP-E) and constructed using the Canadian Occupational Performance Measure (COPM).
- Bi-weekly workshops led by an occupational therapist were intended to facilitate a learning environment for those delivering reablement. The workshops were founded on theories of situated learning and reflexive praxis based on Lauvås and Handal's praxis triangle (109).
- Welfare technology. Welfare technologies are explored to streamline the program for everyone involved and to enhance digital knowledge management.

The underpinning theories and models and their relationship to the components are presented in Chapter 4.2.1.1.

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<sup>11</sup>Occupation-based: When occupation is a fundamental part of something, e.g., a method for an intervention or evaluation (93).

<sup>12</sup>Occupation-focused: Bringing occupation into focus – focusing on occupation (93).

#### 4.2.1.1 *Theoretical foundation of ASSIST 1.0 and its components*

The theories and models used to underpin ASSIST 1.0 is the Canadian Model of Occupational Performance and Engagement (CMOP-E)(11), the 'Do, Live, Well'-framework (36), reflective practice (115), and Banduras self-efficacy theory (116). In relation to these theories, the components of ASSIST will be more explicitly presented.

**CMOP-E** is a conceptual framework that describes the dynamic, intertwined relationship between person, environment and occupation, where (occupational) *engagement* highlights that occupational therapists are interested in more than just performance (11). The predecessor to CMOP-E was CMOP, which had a strong emphasis on occupational performance, an outcome from the interaction between person, environment and occupation (11). In CMOP-E the idea of occupational performance has been developed and goes beyond performing occupations to emphasis humans' need for *having* occupations (117). By including *engagement*, the intention was to recognize that "the construct of occupational engagement captures the broadest of perspectives on occupation" (5, p.24). Engagement is not the final destination but rather a process where people can be more or less engaged in their occupations (36). The evolvement from CMOP to CMOP-E strengthens the model's application for ASSIST 1.0 and reablement since it emphasizes occupational engagement and intends to see beyond performance. People are more than what they do. Hence, to fully incorporate a holistic perspective and consider the whole person, we should look beyond occupational performance. The relationship between the environment, the person, and occupation is central within occupational therapy and occupational science and is illustrated in several models but with differences regarding the composition and positioning about the relationship between environment, occupation, and person (11). To underpin ASSIST 1.0, CMOP-E became a natural choice since the Canadian Occupational Performance Measure (COPM) (see next page and Chapter 4.6, Table 5) was chosen as primary outcome measure.

**'Do, Live, Well'-framework** captures the links between occupation, health and well-being and is a health-promoting framework grounded on the idea that "what you do every day matters to health and well-being" (36). Moll et al (36) promote *doing* in this framework (instead of e.g., being) but emphasize that it includes a wide range of occupations, not only what a person does. In addition, they argue that their choice of applying doing to be more accessible and understandable for the general population (36). As presented in Chapter 1, I do not consider the division of doing, being, becoming, and belonging to be so easily used in isolation from each other as Moll et al (36) describe. Additionally, it could be questioned whether the general population would not understand being, or becoming and belonging? Although the question is out of the scope of this thesis, it is worth reflecting upon when applying the framework.

The Do, Live, Well – framework is constituted on four main sections, representing building blocks, see figure 4. The figure illustrates the interconnectedness of personal and social forces with the three main domains: experiences, activity patterns, and health and wellness outcomes (36). It implies that specific life experiences and activity patterns have the potential to positively influence health and well-being outcomes, while personal and social influences potentially impact individuals' engagement in activities that promote health. The Do, Live, Well – framework is relevant for ASSIST since it highlights the connection between engaging occupations, health and well-being. It also promotes reflections on occupations that are missed or disrupted (e.g., when in need of support by home care, as in ASSIST). Thus, the framework intends to empower people to reflect on their occupational engagement and how this can influence their health and well-being (36).

**Bandura's self-efficacy theory.** Founded in the social-cognitive theory, Albert Bandura proposed self-efficacy as a key for initiating and upholding behaviours (118). Self-efficacy is a dynamic construct that has been shown to impact behaviour and performance and, consequently, our health (118). The theory explores a person's belief in their ability to perform specific tasks or achieve particular goals, and Bandura explains it as: "Perceived self-efficacy refers to beliefs of one's capabilities to organize and execute the courses of action required to produce given attainments" (112, p.3). In ASSIST 1.0, the self-efficacy theory was applied to explore how older adults perceived their capability in a variety of activities that could be performed both at home and in society, their resilience when encountering setbacks and what activities they chose to engage in. It also guided the initial conversations with the older adult, and a self-administrated assessment was developed based on the theory.

**Goal-oriented support,** founded on CMOP-E and COPM, is one of the components of ASSIST 1.0. Setting goals is a common feature in reablement interventions. However, few studies present which theories and methods they have applied for the goal development and support plan (90). For ASSIST 1.0, the Swedish version of the COPM (119) was used. COPM is a client-centred assessment that supports persons to identify, prioritize, and evaluate issues they encounter when performing valued activities in everyday life (119). COPM focuses on three occupation areas:

- Self-care: what a person needs to do
- Productivity: what a person is obliged to do
- Leisure: what a person wants to do

In ASSIST 1.0, the semi structured interview is conducted by an occupational therapist. During the interview the older adult identifies activities that they want and need to perform but perceive as difficult in doing so. This is followed by reasoning about the



perceived occupational performance, which refers to "...the ability to choose, organize and satisfactorily perform meaningful occupations..." (1, p.379).

**Workshops: Situated learning – professional reasoning.** Few research articles describe how the staff who deliver reablement gain necessary information about the program, how they deliver the intended support, and what they actually implement and bring with them into their praxis for the program. In ASSIST 1.0 we want to facilitate reflections and discussions about what reablement is compared to current praxis and how reablement is understood, applied, and implemented; thus, we incorporated bi-weekly workshops led by an occupational therapist. This component is grounded in the psychological and pedagogical aspects of reflective practice and situated learning. Here, we integrated the principles of the unique lived experiences of the staff, how to support their reflection process and how narratives can support professional reasoning and detect changes in reasoning during the ASSIST 1.0 program (51). Situated learning highlights that knowledge and practice are inseparable and that tacit knowledge has to be reflected upon so that the practice becomes an object that can be changed (115,120). Recognizing and being aware of one's actions and receiving professional coaching is essential (115) for praxis development. Consequently, ASSIST 1.0 employs Lauvås and Handal's "praxis triangle" model (115) as a theoretical frame for the workshops and the reflective process with the nurse assistants. The praxis triangle comprises three levels. The foundation constitutes our actions, reflecting our intended or ongoing actions in a given situation (1). In ASSIST, this refers to describing situations that occur in the work of nurse assistants, where each individual can share their perspective on a given situation. The middle level concerns our motivation for action, rooted in experiences and theoretical knowledge (2). At this level, we draw connections between theories and perspectives from ASSIST and reablement, as well as perspectives deriving from occupational therapists. This entails relating theory and professional knowledge to gain a comprehensive understanding of a situation from multiple angles. The top of the cone relates to ethical righteousness concerning our actions (3). Here, our discussion can transcend into a different dimension as we apply our ethical reasoning. Consequently, our experiences, knowledge, and ethical position influence and guide our actions, which Lauvås and Handal considered to be our praxis theory (4). Furthermore, they consider it to be an educational praxis when praxis theory is combined with our actions (5).

**Welfare Technologies in ASSIST 1.0.** The inclusion of technological solutions supporting the provision of reablement is lacking, and already in 2015 it was suggested to apply technology to streamline reablement interventions (109). Since digitalization and technology are becoming more integrated with society in general and the delivery of care specifically, it is of the essence to explore the potential of welfare technologies in this field. In collaboration with the staff who would deliver the reablement program, it was intended to identify gaps in their context where welfare technology could be of use

and then incorporate the suggested solutions. It was also intended to explore the practical implementation and impact of integrating new welfare technology into reablement. Although open to what welfare technologies were available and how they could be incorporated, the underlying idea was to explore how information about older adults' wishes and needs was accessible. In relation to the content of ASSIST, the intention was also to explore how to strengthen the person-centred approach to facilitate accessibility to older adults' goals and request support for everyone who supported them.

#### **4.2.2 ASSIST 1.0: A Complex Intervention**

ASSIST 1.0 is a complex intervention, characterized by a multitude of interacting components, and the outcome is dependent on those delivering and receiving it (121). The interacting components are constituted by the behaviours of those delivering or receiving the intervention, the various groups or organizational levels targeted, diverse outcomes, and the potential for customization of the process (122,123). Furthermore, the process is non-linear and contains several feedback loops and synergies (122). In the realm of home care, implementing a complex intervention like ASSIST 1.0 can pose unforeseen challenges. Given its multidimensional nature, it is beneficial to conduct a feasibility study before a full-scale trial. A feasibility study enables the identification of potential issues, risks, and uncertainties that could undermine the acceptability and delivery of the intervention (122,124).

Moreover, feasibility studies permit flexibility to make adaptations during the process, in contrast to more rigid pilot studies (121). This flexibility permits customization of the given context if issues should arise. Conducting a feasibility study evaluates the program's components and structure before a full-scale trial (124).

For the ASSIST 1.0 project, the following feasibility domains are assessed:

- Study design: recruitment, retention, conducted activities, and contextual aspects.
- Clinical outcome measures: in ASSIST 1.0, we assessed the capability of the outcome measures to detect change after ten weeks.
- Fidelity: whether the intervention is delivered with fidelity and if it is functional.
- Acceptability: whether the stakeholders deem the intervention acceptable.

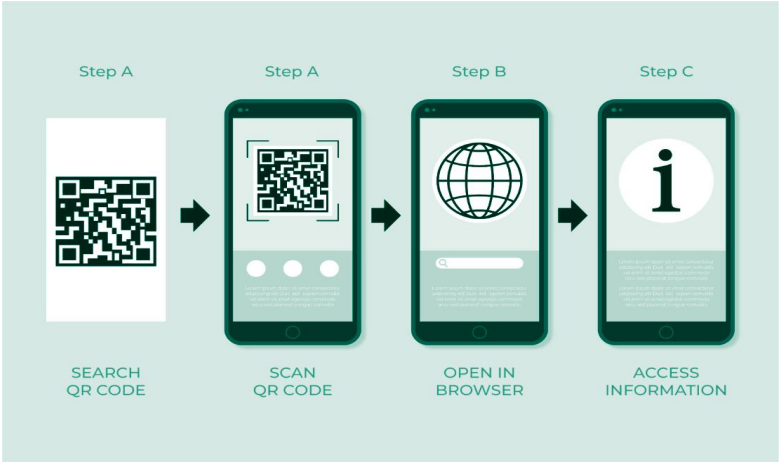
### **4.3 Study IV: An ICT System to Facilitate Digital Knowledge Management**

The aim of this fourth study was to gain knowledge about the usability of the ICT systems and how staff experienced its usefulness in their daily work.

In Study II, we introduced an innovative ICT system by combining two ICT components: Quick Response (QR) codes and the free, open-source content management system (CMS) WordPress. QR codes consist of encoded data (similar to a bar code) (125) that can be scanned using a smartphone or tablet, providing access to a linked website with entailing information (see Figure 4). WordPress serves as a platform for, e.g., creating webpages. In WordPress, unique webpages and QR codes was linked to each other and generated to each participant. Home care staff (or others whom the older adults wanted to share information with) could simply scan the QR code to gain access to the information. While this innovative idea was introduced in Study II, only a handful of older adults received QR codes in that study. When the idea received positive feedback, it prompted us to further explore the potential of the technology and develop this study.

Originally, the intention was to apply the same approach and design used in Study II to facilitate the accessibility of older adults' goals and requested support. However, due to the constraints of the COVID-19 pandemic, the researchers were prohibited from on-site meetings with managers, home care staff, and older adults. Consequently, the study was re-design, wherein home care staff were asked to gather information from the older adults regarding what the older adults considered to be important for the staff (and other visitors) to know. In alignment with the approach of reablement and ASSIST 1.0, the staff was asked to retrieve information about what support the older adults wanted to receive in order that they might engage and participate in everyday activities. The study design of Study IV is presented in Table 2.

**Figure 4.** The process of scanning and retrieving information via QR codes.



**Table 2.** Overview of the phases of Study IV with regard to the timeline, participants, activities, data collection and analysis methods, and assessed usability component.

| Phase                                     | Timeline                  | Participants   | Phase content  |
|---|---------------------------|--|--|
| Phase 1<br>Start-up/planning              | September - November 2020 | Agency manager and Agency coordinator                | Development of study design  |
|   |                           | Unit 1 (n=6) and Agency coordinator                  | Information meetings and retrieving information regarding the organization and communication pathways        |
| Phase 2<br>Usability testing              | December 2020             | Unit 1 (n=5) and Agency coordinator                  | Performing the usability tests via online video observations.  |
| Phase 3<br>Piloting and Monitoring        | February - May 2021       | Unit 2 (n=40) and Unit manager                       | Piloting of the QR codes and webpage   |
|   |                           | Older adults (n=15)                                  | Retrieving information from older adults to enhance the person-centred approach when piloting the ICT system |
| Phase 4<br>Evaluating the user experience | June 2021                 | Unit 2 (n=6) and Unit manager                        | Evaluating the ICT system, intended use and future possibilities   |
|   |                           | Agency manager, Unit manager, and Agency Coordinator |  |

Note: 'SUS = System Usability Scale.

## **4.4 Context of the Four Studies**

All projects were conducted in the Stockholm region of Sweden, with seven municipalities included. In total, 20 different home care agencies participated. Participants in the four studies consisted of 275 home care staff members, four home care agencies and unit managers, and 32 older adults.

The main focus of this thesis is on the provision of reablement within the context of home care. Therefore, I will provide a more explicit presentation of the context for the four studies, including the accessibility and provision of home care and healthcare in the Stockholm region.

### **4.4.1 Home Care Agencies**

The municipalities that participated in Studies I-IV all had public and for-profit home care agencies. In Study I, there is a blend of public and for-profit home care agencies, while Studies II-IV only involves public home care agencies. The reason why only public home care agencies participated in Studies II-IV is due to the convenience sampling process, where the research group had access to managers responsible for the home care services provided by the municipality. In Study I, however, the request to participate was distributed via research and development units in the region, and thus, all organizations delivering home care were approached.

### **4.4.2 Supported Discharge Home Care Service**

Within Swedish home care, a new work model has been implemented during the last decade called Supported Discharge Home Care Services (SDHCS). SDHCS is a Swedish work model that is currently implemented by more than half of the Swedish municipalities and provides intense support for a limited time (1-2 weeks), to older adults who have been discharged from the hospital (8). During these two weeks, the intention is to facilitate a safe and secure discharge for older adults back to their home environment. The SDHCS staff applies a rehabilitative approach and supports the older adults to regain and maintain their abilities. The staff delivering supported discharge often consists of nurse assistants and care assistants; however, some municipalities include nurses, occupational therapists, and physiotherapists, who together form a supportive discharge team. In Studies II-III, an SDHCS group with three nurse assistants participated. They provided intense support for two weeks, during the day, Mondays through Fridays. If the older adult needed support in the evening, at night or on the weekend, a regular home care unit delivered the support, although these units were not involved in the studies.

## 4.5 Sampling and Participants

The recruitment of participants was conducted by using convenience and purposive sampling techniques. A convenience sampling technique means that the setting and the group (and individuals) were conveniently available and willing to participate in the study (126). A purposive sampling technique is one in which specific members of a smaller population likely to have certain characteristics or experiences are asked to participate (126).

Study I. To recruit participants, a convenience sampling technique was applied by contacting and receiving support from key personnel working at Stockholm County's Research & Development (R&D) unit within elderly care. These individuals identified and invited potential municipalities and home care agencies to participate. The recruitment process occurred during 2017/2018. Out of 26 invited municipalities, five municipalities with 17 public and for-profit home care agencies agreed to participate. The 17 home care agencies comprised 481 employees.

Study II. Via the region's Elderly administration, we received support to identify and approach one municipality in the region of Stockholm that had not partaken in Study I. To enable an intervention group (IG) and a control group (CG), two district areas within the municipality were conveniently chosen. One district area provided SDHCS to older adults and was requested to be the IG. In the other district, an administration team with social workers who granted home care applications were invited to identify potential participants (older adults) for the CG. Hence, the recruitment of older adults had a purposive sampling method.

Study III. All staff members of the SDHCS group in Study II were asked to partake in interviews before, during and after the project, in which everyone chose to participate.

Study IV. A convenience sampling technique was applied when reaching out to a manager working for a municipality's social services in a southern district area in the Stockholm region. This social service manager reached out to the public home care agency's manager, who supported the establishment of the project and applied a purposive sampling technique to approach two home care units and ask if they could participate.

None of the municipalities participated in more than one project.

In addition to all the employees from different home care units who participated in the study, older adults were purposively invited to participate in Studies II and IV. In Study II, older adults were invited by the nurse assistants in the SDHCS group to partake in the IG or via the social workers at their initial meeting with the older adults at the hospital. In Study IV, older adults were invited to participate by the home care workers during one of their regular visits.

#### **4.5.1 Eligibility**

In Study I, home care agencies had to fulfil the following criteria to participate in the project: i) have >30 employees (nurse and care assistants) who had at least three months of work experience and a contract equalling  $\geq 50\%$  employment (20 h/week), and ii) provide home care services to >30 older adults.

Study II had eligibility criteria for the older adults who participated in the project. All older adults had to i) be over 65 years of age, ii) speak and understand Swedish, iii) be discharged from the hospital, iv) be granted home care service and v) not have a cognitive dysfunction that hindered them from being able to understand their situation, answer questions, or formulate goals. In addition, participants in the IG had to be granted SDHCS and have the ability to conduct the first assessment within five days of discharge from the hospital, while participants in the CG had to be able to conduct the first assessment within ten days of discharge. The first assessment for the IG could not be prolonged due to the specific timeline of the SDHCS.

Study III. No specific eligibility criteria were applied since all SDHCS staff from Study II were considered and asked.

Study IV. No specific eligibility criteria were applied for the home care staff. For older adults, the following criteria were applied i) had to be receiving home care from the participating unit, and ii) had to have the ability to understand the written information about the project and what it meant to participate in the study.

## 4.6 Data Collection and Analysis

This section presents the procedures, variables and instruments used to collect data for each study, followed directly by the data analysis. The presentation of the data collection process for Studies II and III are merged, as this occurred in an intertwined process, but the analysis is presented separately.

### 4.6.1 Study I

#### 4.6.1.1 Data Collection

Out of the 26 home care agencies that were approached, 17 accepted the invitation to respond to a questionnaire concerning psychosocial work environment and job strain. All employees from the 17 home care agencies received written information about the project from the researchers and oral information from the managers before gaining access to the questionnaire. Initially, a link to an online questionnaire was sent to all employees via their work e-mail address. By opening the link, they consented to participate. Even though reminders were sent out by the researchers and were provided orally by the unit managers, the response frequency was low. Hence, it was decided that a paper questionnaire would be provided to increase the number of participants. In addition, one of the project's researchers visited all participating units and presented the aim of the project and the paper questionnaire to the employees. The researcher left a locked poll-box at each division where the filled-in questionnaires were collected.

The questionnaire constituted three instruments (Table 3). The layout design of the online questionnaire and the paper one was similar, with a coherent order for personal characteristics data and the order of the instruments. The first page of the questionnaire included questions about gender, age, Swedish as a first language, formal education, education in care/caring, work time, permanent position, and years of work experience within home care services (127). Thereafter followed the *Strain in Dementia Care Scale (SDCS)* (128,129), The *Satisfaction with Work Questionnaire (SWQ)*, where four questions derived from the subscale "psychosomatic health aspect" (PH) (130), and the *General Nordic Questionnaire for Psychological and Social Factors at Work* (QPS<sub>Nordic</sub><sup>34+</sup>). The included instruments are presented in Table 3 (131–133).



**Table 3.** Instruments included in the questionnaires in Study I.

| Instruments | Strain in Dementia Care Scale (SDCS)<br>(128,129)  | Satisfaction with Work Questionnaire (SWQ)<br>(130)   | General Nordic Questionnaire for Psychological and Social Factors at Work (QPS <sub>Nordic</sub> <sup>34+</sup> ) (131–133)   |
|-------------|--|---|---|
| Purpose     | A self-reported instrument to evaluate the perceived level of job strain and work situation for care staff. Statements regarding situations occurring at work are evaluated.   | A self-reported instrument to evaluate the work environment for care staff working with older adults                      | Assess psychosocial factors of the work environment and investigate the relationship between work, health and productivity. The short version QPS <sub>Nordic</sub> <sup>34+</sup> includes 37 questions/items, compared to the original 118.   |
| Structure   | 27 situations (items), clustered into five factors.<br>Each factor is divided into two domains: how frequently a situation occurs and how stressful one perceives the situation.   | Four questions from the SWQ subscale "psychosomatic health aspect" (PH) were extracted and included in the questionnaire. | A total of 37 items, of which 34 items (1–34) are assembled into eight subscales and 3 (34–37) are considered single items.   |
| Content     | The five factors:<br><br>Frustrated empathy – F1 (7 items)<br>Difficulty understanding and interpreting – F2 (7 items)<br>Balancing competing needs – F3 (5 items)<br>Balancing emotional involvement – F4 (4 items)<br>Lack of recognition – F5 (4 items) |   | The eight subscales:<br><br>Job demands (4 items)<br>Role expectations (3 items)<br>Control at work (6 items)<br>Predictability at work(1 item)<br>Mastery of work (1 item)<br>Social interactions(4 items)<br>Leadership (2 items)<br>Organizational culture & climate (8 items)<br>Perception of group work (2 items) |
| Measure     | Both frequency and stress are rated on a four-point Likert scale:<br>1=never/no stress to 4=very often/high stress.<br>-----<br>Frequency<br>X<br>stress<br>= job strain<br>Score 1–16   | A five-point Likert scale with the options 1=very often to 5=never.   | Responses to items 1–34 are made on a five-point Likert-scale, ranging from 1=very seldom/never to 5=quite to very often/always. The final three single items have the response options 1=do not agree/not at all to 5=fully agree/very much.   |

#### 4.6.1.2 Preparatory Data Analysis

**Organising Data.** A total of 226 out of 481 employees responded to the questionnaire, with 77 employees responding online and 149 via the paper questionnaire. Since data were collected in two ways, all data was merged manually into an Excel spreadsheet before data analysis could proceed. For the online data, the response range had to be converted from 0–4 to 1–5. To minimize the risk of errors, I collaborated with the researcher responsible for the data collection when transferring the data. In addition, when dealing with the data from the paper booklet, consensus had to be reached if participants had changed an answer by crossing over or erasing their responses. If consensus was not reached, the data was treated as missing data. When all data had been inserted into Excel, the data was transferred to and analysed in the software program SPSS version 26 (134).

**Missing Data.** Before conducting statistical analysis, the data underwent preliminary control for missing values, adherence to normal distribution, and homoscedasticity. Missing data was foremost controlled for the subscales of SDHCS and in Nordic<sup>34+</sup> and the four HP questions. The five SDCS factors had 20% to 25% missing data, while the QPSNordic<sup>34+</sup> subscales and PH questions 1 and 3 exhibited 1.8% to 8.4% and 1.3% to 1.8% missing data, respectively. A missing value analysis and a Little's MCAR test indicated that data were missing both at random and not completely at random. The analysis revealed that some data exhibited systematically missing data (e.g., participants omitting responses to specific sets of SDCS questions), but most responses were missing at random. In order to enhance validity and ensure robust statistical analyses of the dataset, missing data in SDHCS and QPS Nordic<sup>34+</sup> was imputed by a multiple imputation (MI) method (135–137). Since the PH questions had less than 2% missing data, this level of missing data was considered acceptable, and consequently, imputation was not performed for the PH questions.

When data is missing, several methods can be used to manage the data. Previous SDCS studies had calculated a mean to replace the missing value (110). However, MI enables a more precise and robust strategy to deal with missing data. It has also been shown that MI is most suitable for scores on item level (137), which is the case for both SDCS and QPSNordic<sup>34+</sup>. Additionally, mean imputation should not be applied to manage missing data when more than 10% is missing since it can cause bias estimates (137). The MI approach involves substituting missing values with estimated values, thereby reducing uncertainty concerning the missing data (135). The MI process improves the data's validity, increases precision, and enables robust statistical analysis (137). The process of MI can be explained as having missing pieces in a puzzle. Instead of leaving those spots empty, MI can predict what might fit there based on your other pieces. This is done multiple times, creating different completed puzzles. I applied an automatic/fully conditional specification method, using five imputations and ten iterations. Furthermore,

logistic regression was applied as the imputation model, with each response being set to intercept-only. The outcome of the MI process is a mean value derived from the five imputation cases, where the result is presented in a pooled dataset (135).

**Normal distribution, homoscedasticity, and multicollinearity** were assessed to determine the feasibility of performing multiple linear regression (MLR) modelling.

*Normal distribution* is an important initial statistical analysis test as many statistical methods (parametric tests) assume that data follows a normal distribution. Parametric tests tend to be more valid and accurate, providing reliable results. If data is not normally distributed, non-parametric tests are required, although, with large sample sizes, some tests are robust and can manage deviations from normal distribution.

Assessing homoscedasticity is essential for conducting MLR modelling.

*Homoscedasticity* suggests that the spread of the data points around the regression line is consistent throughout the range of the predictor(s). Violations of homoscedasticity can lead to incorrect inferences and affect the reliability of the model's predictions. *Multicollinearity* assesses whether two or more independent variables in a model are highly correlated with each other if they provide similar or redundant information about the dependent variable. Problems with multicollinearity can make it challenging to interpret the individual impact of each dependent variable, can make the model unstable and can make false predictions. In accordance with Hair et al., (138), the following threshold for multicollinearity was applied:

- Correlation coefficients:  $r < 0.80$  (+1 or -1 indicates strong multicollinearity)
- Variance Inflation Factor (VIF):  $< 5$  (A VIF above 5 indicates moderate multicollinearity, and above 10 suggests high multicollinearity)
- Tolerance:  $> 0.40$  (A value less than 0.1 or 0.2 is seen as indicating multicollinearity)

#### 4.6.1.3 Main Data Analysis

Descriptive statistics were used to present the participants' characteristics and all items in each instrument. The descriptive output presents frequencies and percentages for categorical variables and means and standard deviations for continuous variables.

Several statistical inferential tests were conducted to assess if there were any significant associations or connections between different variables. Chi-square tests and Fischer's exact test (139) identify connections between categorical dichotomous variables (e.g., gender) that influence variations of job strain. An Analysis of Variance (ANOVA) test and a Kruskal-Wallis test (139) compare the mean scores of job strain with multi-choice responses (e.g., education level). ANOVA helps to identify whether the differences are likely due to actual group variations or if they could have happened by chance. The Kruskal-Wallis test is a non-parametric alternative to the one-way ANOVA when the normality assumption is unmet (139).

Significance was determined at the  $p < 0.05$  level, and  $p$ -values ranging from 0.05 to 0.10 are provided to highlight potential clinical significance.

I employed Multiple Regression Analyses. (MLR) analyses to investigate the extent to which various factors, such as individual traits, organizational and psychosocial aspects of the work environment, and psychosomatic health, contribute to the perception of job strain.

Six MLR models were developed, where the six dependent variables (DV) were i) overall job strain, and ii-v) the five SDCS factors (F1, F2, F3, F4, or F5). To build a complex model I had to identify factors (independent variables) that could influence and be included in the MLR models. Independent variables were participants' characteristics, subscales, individual items within QPSNordic34+, individual items from the SDCS, and the four psychosomatic health questions. To determine which independent variables could be included in each of the six subsequent MLR models, each independent variable had to meet the following criteria: have an unstandardized regression coefficient (B)  $p$ -value of  $< 0.25$  and demonstrate a significant correlation ( $p = 0.05$ ) with the DV. These criteria inform whether the variable has a noticeable effect on what we are trying to predict. In terms of model evaluation, we assessed the Adjusted  $R^2$ . An Adjusted  $R^2$  refers to the model's goodness of fit and considers both how well the model fits the data and how many variables are included in the model. With useful variables, the  $R^2$  increases, while with unnecessary variables, the  $R^2$  will decrease or stay the same. If  $R^2$  exceeds 0.20, the model is considered substantial, drawing on previous research involving subjectively perceived data (139).

## 4.6.2 Studies II and III

### 4.6.2.1 Data Collection

The SDHCS group and the social workers supported the recruiting process of older adults by providing information to those being discharged to their district. Initially, 75 older adults were identified, but only 39 were referred to the research team for an information meeting. Reasons for this were that some were excluded due to not meeting the inclusion criteria (e.g., having dementia, not being discharged as planned, or language barriers). In contrast, others declined participation due to a lack of interest or fatigue. Of the 39 contacted older adults, 17 were excluded for similar reasons as in the first round. In the end, 22 older adults began their participation in the study. Both quantitative and qualitative data were collected for the of the ASSIST 1.0 program feasibility study (Study II). Qualitative interviews conducted with the nurse assistants were also used for Study III. See table 4 for data collection details in the ASSIST 1.0 program and Table 5 for the assessment instruments used. The instruments were chosen based on their prior use in reablement research for potential comparison with past and future outcomes. Lastly, Figure 5 illustrates the ASSIST 1.0 program process.

**Older Adults.** The assessments of the older adults participating in ASSIST 1.0 were conducted by an occupational therapist from the research group. The meeting initially started with providing information about the project and retrieving informed consent (see Figure 5). Then, the assessment started. Firstly, COPM was used to identify activities that the older adult considered important and wanted to work with. When the activities were identified, they were transformed into goals and strategies were developed for how the support should be tailored so the older adult could reach their goals. Thereafter, assessments with the instruments are presented in Table 5. Older adults' perceptions of their health, well-being, activity performance, and self-efficacy were assessed at three time-points (Table 5).

**SDHCS group.** The nurse assistants in the SDHCS group participated in individual interviews on three occasions before, during and after the ASSIST 1.0 program. The interviews intended to enable the nurse assistants to reflect upon and reason about their work in the ASSIST 1.0 program. The manager of the SDHCS group participated in an individual interview when the program was finalized. Throughout the ASSIST 1.0 program, the SDHCS participated in workshops with the occupational therapist where they reflected upon their work, the older adults' goals, and applying reablement (Figure 5).

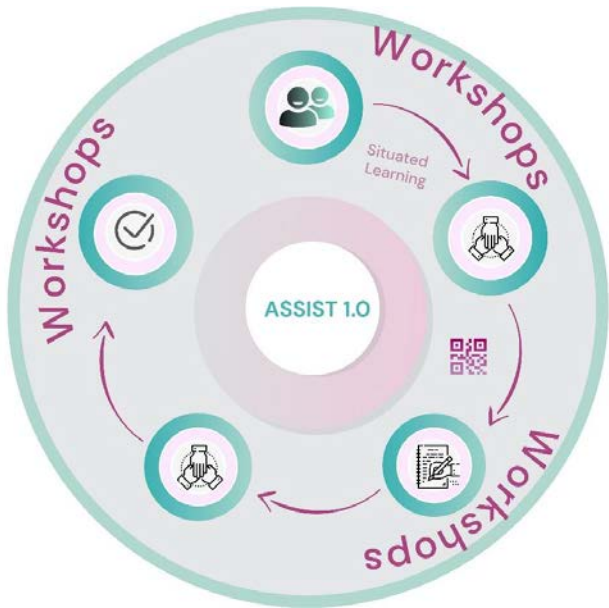
**Fieldnotes.** Throughout the project, a colleague of mine and I, wrote fieldnotes. These fieldnotes included reflections on each encounter with staff members or older adults, of activities and topics discussed at the workshops, and on contextual influences of specific situations or reflections relating to the overarching project.

**Table 4.** Overview of qualitative and quantitative data used in Studies II and III collected during the ASSIST 1.0 project.

| Study  | Participant                                | Qualitative data collection  | Quantitative data collection   |
|--------|--|--|--|
| II     | Older adults<br>IG (n=7)<br>&<br>CG (n=10) | Individual semi-structured interview at the 2 <sup>nd</sup> follow-up session for older adults in both IG and CG.<br><br>Approx. 15-60 minutes/person. | <u>Baseline:</u><br>1. Data regarding characteristic and required support.<br>2. COPM + 9 instruments to assess older adults' perception of their health, well-being, activity performance and self-efficacy.<br><u>1<sup>st</sup> follow-up:</u><br>COPM re-assessment + 2 additional instruments.<br><u>2<sup>nd</sup> follow-up:</u><br>COPM + 11 instruments |
|        | Researchers<br>(n=2)<br>IG & CG            | Field notes from observations and interactions with all participants throughout the project  |  |
|        | SDHCS<br>Manager                           | Individual interview when the project was finalized  |  |
| II-III | SDHCS staff,<br>NAs<br>n=3<br>(IG)         | Three individual semi-structured interviews; before, during (6 months) and after (13 months) the program start. 60-90 minutes/person/interview.        |  |

Note: IG = intervention group, CG= control group, COPM= Canadian Occupational Performance Measure, SDHCS= Specialized Discharge Home Care Staff, NA=Nurse Assistants

**Figure 5.** Illustration of the process in ASSIST 1.0 with the assessment points and the staff’s involvement as continuous processes throughout the program.



**Table 5.** Instruments used in Study II at baseline, 1<sup>st</sup> follow up and 2<sup>nd</sup> follow up with older adults in the intervention group (IG) and with the control group (CG).

| Instrument   | Purpose  | Measure  | Cut-of/change   | Assessment sequence  |
|--|--|--|---|--|
| <b>Canadian Occupational Performance Measure (COPM) (43)</b>                           | Perceived performance and satisfaction with activities related to self-care, productivity, and leisure.                    | Scale ranging from 1 to 10 for two aspects of the study: i) current performance, 1=not able to perform the activity at all to 10=able to do it extremely well, and ii) satisfaction with performance, 1=not satisfied to 10=extremely satisfied. | A 2-point change between measure points = clinically significant change                                 | Baseline<br>1 <sup>st</sup> follow-up<br>2 <sup>nd</sup> follow-up |
| <b>Barthel/Katz ADL (48, 49)</b>   | Psychical function of personal and instrumental activities in daily life.  | Barthel: 0=dependent, 5=need of assistants and 10=independent<br>Katz ADL: 0=dependent, or 1=independent   |   | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>Frenchay Activity Index (FAI) (50)</b>  | Frequency of conducting a variety of social and domestic activities during the last 3 or 6 months.                         | Scale ranging from 0 to 3 for each question. Total sum ranges from 0=inactive to 45=very active.   |   | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>EQ-5D-3L (55)</b>   | General life quality. Perceived state of health in five dimensions: mobility, hygiene, main activities, pain, and anxiety. | Index scale from 0 to 1. 0=death and 1=full health.  | A change of more than 0.1 is a clinically significant change  | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>EQ-Visual Analogue Scale (55)</b>   | Perceived state of health.   | Scale: 0=worst possible health, 100=best possible health.  | A change of more than 10 units is a clinically significant change                                       | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>Life Satisfaction Scale 11 (LiSat-11) (54)</b>                                      | Perceived satisfaction with life.  | Scale: 1=not satisfied to 6=very satisfied   |   | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>Hospital Anxiety and Depression Scale (HADS) (53)</b>                               | Perceived anxiety and depression.  | Two subscales: anxiety and depression. Responses are graded 0 to 3. Subscale scores ranges from 0-21.  | 0–7 = no anxiety and depression, 8–10 = mild, or 10-21 =moderate to severe anxiety and depression       | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>Re-integration into normal living index (RLI) (52)</b>                              | Mobility, self-care, daily activity, recreational activity, and family roles.  | Each question is rated: 0=does not describe my situation to 4=describes my situation very well   |   | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>Self-efficacy Scale (SES) (51)</b>  | Confidence in the ability to conduct activities.   | Each activity is rated: 1=not confident to 10=very confident   | A score of > 5 is considered to represent confidence in the ability to perform activities in daily life | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>Sense of Coherence 13 (SOC- 13) (56-58)</b>   | Perception of one's existence/coherence in life.   | Each question is rated on a 7-point Likert scale. Total score ranges from 13 to 91. A higher score = a higher sense of coherence.  | A mean of 61 is considered normal in Sweden.  | Baseline<br>2 <sup>nd</sup> follow-up                              |
| <b>The Dartmouth Functional Health Assessment Chart/WONCA (COOP/WONCA chart) (140)</b> | Perceived functional capacity during the last two weeks.   | 5 questions are responded to on a 5-point scale ranging from 1=no limitation/much better at all to 5=severely limited/much worse   |   | 1 <sup>st</sup> follow-up<br>2 <sup>nd</sup> follow-up             |
| <b>WHO Disability Assessment Schedule 2.0 – 12 (WHODAS – 12, 2.0) (141)</b>            | Identify difficulties in daily life due to the state of health in the past 30 days.  | 12 questions are responded to on a 5-point scale ranging from 1=no problem to 5=extreme problem/cannot perform.  |   | 1 <sup>st</sup> follow-up<br>2 <sup>nd</sup> follow-up             |

#### 4.6.2.2 Study II Data Analysis

Descriptive statistics were used to present details about recruitment, characteristics of older adults, and scores from outcome measures. Data from the instruments were normally distributed (explained in chapter 4.6.2.1), enabling inferential statistics such as independent and paired-sample t-tests. T-tests compare two sets of data to see if they are different from each other. In this study, t-tests were used to see if the instruments were sensitive enough to detect a change over a shorter period. I assessed the mean score differences between the baseline and the first and second follow-up assessments in two ways: i) within each group (IG and CG) and ii) between the IG and CG group. The p-value for the t-tests was set at  $p < 0.05$ . When applicable, I evaluated the clinical significance according to the manual guide of the instruments. All analysis was conducted with IBM SPSS Statistics version 26 (134).

In addition to the quantitative analysis, the field notes and interviews were analysed using a content analysis method (142). The text in the logbooks and the transcribed interviews were compared to the descriptions of fidelity, adherence, and acceptability, as well as in relation to the components of ASSIST 1.0. Information relating to these descriptions was extracted and grouped into the predetermined sub-themes.

#### 4.6.2.3 Study III Data Analysis

Data for this study consisted of the individual interviews conducted with the three nurse assistants in the SDHCS group. In total, nine interviews were transcribed, resulting in 220 A4 pages. To analyse the data, I opted for a reflexive thematic analysis, as outlined by Braun and Clarke (143,144). This method appealed to me due to its flexibility, richness, interpretative insight, and emphasis on reflexivity. I particularly appreciated the reflexive approach that encourages one to concede one's perspectives, acknowledging that the researchers' knowledge and pre-understanding are valuable resources in the analysis process. My objective was to investigate the complexities of several components in the ASSIST 1.0 program, such as the goal-oriented support and process of situated learning where the staff reflected on their work at the workshops. Therefore, I adopted a theory-laden<sup>13</sup> and data-driven<sup>14</sup> analysis approach, as I believe these two approaches complement each other in developing a comprehensive understanding of the outcomes.

I initiated the analysis process by listening to the interviews and transcribing the data, which was influenced by my prior knowledge concerning the ASSIST project and the study's research question. These initial thoughts are integral to the analysis and cannot

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<sup>13</sup> Theory-laden: "Capable of being understood only within the context of a specific theory" <https://www.collinsdictionary.com/dictionary/english/theory-laden> . Our observations and interpretations of data is influenced by theoretical frameworks gained from education or experiences. How we perceive and make sense of the world is influenced by our knowledge, beliefs, and assumptions.

<sup>14</sup> Data-driven: Relying on empirical data to inform and support research findings.



be disregarded. Additionally, I concurred with Braun and Clarke's perspective that collaborative analysis allows for integrating different viewpoints, enhancing the depth of the analysis (143). Hence, the discussions with my co-authors in the analysis process were to explore different viewpoints and interpretations to gain a richer understanding of the data. This contrasts with content analysis, where the primary aim is to reach a consensus in discussions with colleagues to enhance trustworthiness.

Thereafter, the reflexive thematic analysis process proceeded as follows. I began by making myself familiar with the data by listening to the interviews and reading the transcripts in the order they were conducted. In the second round of listening and reading, I made reflexive notes and mapped the data based on their connection to the components within ASSIST 1.0 (workshops and reflecting with an occupational therapist, goal setting, and professional development). This initial stage was conducted with pen and paper. I then continued with the analysis using Atlas.ti (145) to organize and sort the data.

In the second phase, I systematically worked through the data by making semantic (manifest) and latent codes. Coding was conducted to capture my analytical take on the data, while latent meaning units were developed to capture aspects of implicit meaning, and semantic codes captured explicit meaning (143). I used both coding techniques to get a nuanced analysis and not miss aspects that the participants indicated, but that were not said in exact words.

The third phase consisted of generating initial themes (143). The codes, both semantic and latent, were clustered into themes. The themes were constructed in relation to my knowledge, the data, the research question, and the constructs of the ASSIST 1.0 reablement program.

In the fourth phase, the initial themes were assessed with respect to the viability of the overall data by going through and comparing the themes with the whole data set (143).

## 4.6.3 Study IV

### 4.6.3.1 Data Collection

To gain a broad overview of what could influence the usability and user experiences of the QR code and the webpage via the CMS WordPress, both qualitative and quantitative data were collected for Study IV. Standardized usability questionnaires were blended with task analysis, individual interviews, and focus group interviews. Below, the different data collection methods are presented (Table 6). Data collection occurred at different time-points throughout the project and is related to four phases.

**Table 6.** Overview of data collection during the different phases of Study IV.

| Phase                                     | Type of data  | Participants  | Data collection   | Purpose  | Measure   |
|---|---|---|---|--|---|
| Phase 1<br>Start-up                       | Information pathways and technology use                         | Unit 1 (n=5) and the agency's coordinator                 | Quantitative and qualitative:<br>Questionnaire about current information pathways | Gain knowledge of current methods to communicate with the unit and in the organization of home care  | Multi-choice responses and open-ended questions   |
| Phase 2<br>Usability testing              | Task-based Usability test of the QR code and the linked webpage | Unit 1 (n=5) and the agency's coordinator                 | Quantitative and qualitative:<br>Task-based Usability test/ protocol              | Assessing users' capability to complete given tasks when using the intended product/system   | Four-graded scale:<br>0) performed with ease,<br>1) performed with difficulty,<br>2) failed to be performed/user error, and<br>3) system error  |
| Phase 3<br>Piloting and Monitoring        | Data inserted in the CMS WordPress and logs of scanned QR codes | Unit 2 (n=40) and older adults (n=15)                     | Quantitative and qualitative:<br>Logged data from the CMS WordPress               | Analyse the usage of the system  | Frequency of use of QR codes and text inserted in the system  |
| Phase 4<br>Evaluating the user experience | User experiences of the QR code and the webpage                 | The agency's manager and coordinator and unit 2's manager | Qualitative:<br>Three individual semi-structured interviews                       | Gain knowledge of how the managers perceived the usability of QR codes and reflections regarding the intended use.                                 |   |
|   |   | Sample from Unit 2 (n=6)                                  | Qualitative:<br>Focus group interview   | Gain knowledge of how the staff in Unit 2 perceived the usability of QR codes and reflections regarding intended use.                              |   |
|   | Usability   |   | Quantitative:<br>System Usability Scale (SUS) questionnaire<br>-----<br>SUS VAS   | Assessing the subjective view of usability. In this study: QR-code and webpage -----<br><br>Assessing the users' overall impression of the QR code | Ten questions rated on a 5-point Likert scale ranging from 1=strong disagreement to 5=strong agreement -----<br><br>VAS: 0= did not meet my expectations at all, to 10=completely meets my expectations |

**Phase 1 – Start-up.** In this phase, a questionnaire was distributed to Unit 1 with the aim of gaining knowledge about current technology use and how information was shared in the home care units. The questionnaire contained multi-response and open-ended questions focusing on which technological devices the staff used; how the staff communicated with each other to retrieve or receive information related to the older adults, in-between the group and with the manager and other stakeholders; and their approach to and interest of new technology. The questionnaire was sent out via email and could be responded to via computer or be printed and sent in by post.

**Phase 2 – Usability testing.** Before implementing the technology into the home care staff's workplace, it was essential to assess the perceived usability of the QR codes and the webpage. The assessment was conducted with Unit 1 and their manager. Two task-based usability tests were developed based on guidelines by Rubin and Chisnell (146), with one test for the QR code and one for the CMS WordPress webpage. A task-based usability test includes all steps required to perform the intended task (146). In total, the test for the webpage included 33 subtasks, while the test for the QR code included eight subtasks. The subtasks for each test were clustered into four main tasks. Additionally, since the aim was to evaluate the systems, the instructions pointed out that this was not an assessment of the participants' technological skills or personal performance when interacting with the system; rather, it was to identify barriers in the system.

The assessments were conducted via the audio- and video software Zoom. The task-based usability test was sent in advance to Unit 1 so they could choose to print the test. When connected to Zoom, the person being assessed shared their screen so the assessor could follow the process via the screen. This was only applicable when the webpage was assessed since scanning a QR code was conducted via smartphone. If participants agreed, the sessions were audio- and video-recorded. The participant read and followed the instructions according to the test and interacted with the system. The participants were encouraged to think aloud and ask questions when needed throughout the process since the researcher wanted to capture spontaneous reflections and thoughts. I consider thinking aloud to be an advantageous process where the participant verbalizes their thoughts, actions and decision-making process when engaging in a task. When being used in usability testing, it enables the provision of immediate feedback about their experiences, which helps to identify issues, areas of confusion, and opportunities for improvement.

To evaluate the effectiveness, efficiency, and satisfaction of the two systems, the task list was integrated into a protocol that included a scoring section. Each task was scored while observing the participants' performance. The scoring was made on a four-graded scale: 0) performs with ease, 1) performs with difficulty, 2) fails to be performed/user error, and 3) system error. In addition, comments about the execution of the task, as well

as comments expressed by the participants (the think-aloud process) were documented.

**Phase 3 – Piloting and Monitoring.** When piloting the QR code and the webpage into the workplace of the home care staff, data (such as frequencies of scanned QR codes, inserted and alternated data from the older adults) was continuously logged and saved in the WordPress system. When the project ended, the logged data was downloaded, converted into Excel files, and saved on a secure server.

**Phase 4 – Evaluating the user experience.** To explore the participants' perceived user experience of the QR codes as well as the management of data in the CMS WordPress webpage, focus group interviews were conducted. The unit 2 manager asked whether the staff were interested in participating in a group interview, resulting in a group consisting of six staff members. Individual interviews were also conducted with the agency manager, agency coordinator and unit manager. The interview guides consisted of open-ended questions with overarching themes, such as experiences using the QR code and the webpage, barriers or enablers using these two systems, and barriers or enablers for using QR codes within the organization. The individual interviews took 30 to 40 minutes, and the focus group took 60 minutes.

A System Usability Scale (SUS) was also distributed to Unit 2. SUS is a ten-statement questionnaire rated on a 5-point Likert scale ranging from 1=strong disagreement to 5=strong agreement. The SUS includes five negative and five positive statements; hence, a specific mathematical method developed by Brooks (147) is required to calculate sum scores. Scores range between 0–100, where a high score indicates high usability and where a score of 68 is deemed average (147). In Study IV, the word "system" in the SUS was changed to "QR code". The SUS was followed with a question regarding the participants' overall impression of the QR code, which was rated on a Visual Analogue Scale (VAS): 0= did not meet my expectations at all and 10=completely meets my expectations. At the end of the SUS questionnaire, six open-ended questions were added so the staff could develop their ideas and reflections regarding the potential value of QR codes' in their work.

#### 4.6.3.2 Data Analysis

**Task Analysis.** A total of 198 observation points were assessed for the webpage (33 subtasks  $\times$  (n=6)), and 42 observation points for the QR code (8 subtasks  $\times$  (n=6)). All 41 subtasks were analysed individually but also when being grouped into main tasks using descriptive statistics in Excel.

**SUS Questionnaire.** The SUS score was calculated according to Brook's (1996) mathematical formula where scores for the negative statements (items 1,3,5,7, 9) were subtracted by 1, and positive statements (items 2, 4, 6, 8, 10) were calculated with minus

5 for each scale position. To obtain the overall score, the total sum of all items was then multiplied by 2.5. The SUS VAS is presented with descriptive output. The responses to the open-ended questions following the SUS and SUS VAS were inserted in a word document and analysed using a deductive content analysis (148).

**Content Management System Data.** Data regarding using the QR codes and the webpage were retrieved and downloaded from the CMS, WordPress. The CSM automatically saved data, such as frequency of scans for each QR code, unique user IDs that had scanned the QR code, all inserted text with information about the older adult's wishes and needs, whether the text had been changed and if so, how often and what had been changed. The quantitative data were inserted into the Excel spreadsheet and analysed using descriptive statistics. The qualitative data, consisting of the inserted text at each older adult's webpage, were copied into a Word sheet. The quotes were used to exemplify older adult's wishes and needs as communicated to the staff.

**Interviews.** The focus group and individual interviews were audio-recorded via Zoom and transcribed verbatim. The transcribed text was analysed using a qualitative content analysis method (142,149) in Atlas.ti (145). The analysis took a manifest approach, meaning it had a closeness to the text that incepts concrete descriptions and interpretations. Additionally, a deductive approach was applied to highlight the prominent and visible content in the data rather than to interpret underlying meanings. Meaning units were ordered into sub-themes developed based on the three usability dimensions of effectiveness, efficiency, and satisfaction, as well as concepts from the interview guide concerning how members of the staff understand, accept, and use technology in their everyday work.

## **4.7 Methodological and Ethical Considerations**

Before delving into the outcomes of the four studies, I will provide an understanding of the methodological and ethical considerations for my conducted research. For my four studies, I have used different methodological approaches to gain knowledge about how home care staff perceive their psychosocial work situation and to evaluate the ASSIST 1.0 program with an emphasis on program design, theory building, and welfare technology use. In addition, ethical principles form any research, ensuring the participants' integrity as well as the integrity of our findings. Hence, in this section, I will reflect upon my studies' methodological and ethical conditions, starting with commonly discussed aspects regarding informed consent and confidentiality before discussing more explicit aspects from experiences during the studies.

### **4.7.1 Ethical Approval**

All four studies were granted an ethical approach from the Swedish Ethical Review Agency (Study I: Dnr.2018/449–31/5. Study II–IV: Dnr.2017/1439–31/1, Dnr.2017/2172–32; Dnr.2018/2691–32, Dnr.2020–06830) and complied with the Declaration of Helsinki guidelines and regulations (150). Together with my main supervisor, I wrote the supplementary ethical application for Studies II and IV.

### **4.7.2 Informed Consent**

Oral and written consent was obtained from participants before data collection began, aligning with the principles of informed consent, which respects the rights of autonomy and the voluntary nature of participation (150,151).

In Study I, participants received project information and were provided informed consent either via email (for web-based questionnaires) or orally and in written (for paper questionnaires). By starting the web-based questionnaire or submitting the paper questionnaire, they consented to participate.

In Studies II and IV, the older adults were informed that their decision to decline participation would not impact their reception of care and support. In Study II, older adults were informed about the project at the end of their hospital stay by the SDHCS group (IG) or the administration team staff (CG), giving them time to consider their interests. If interested, they contacted the research group to retrieve more information and to set up a meeting after discharge. While in Study IV, home care staff provided written project information and consent forms, with contact details, to the research group for further inquiries. If they consented, they signed the form and gave it to the home care staff, who forwarded it to the research group at Karolinska Institutet.

Although oral and written information was provided, and potential participants were given time to consider their participation, ensuring that older adults did not feel

pressured or concerned about the impact on their care can be challenging. This challenge is particularly noticeable when older adults require home care and may perceive a power imbalance or feel obligated to participate. Therefore, the research group needed to emphasize that if the older adult wanted to determine their participation, it would not influence their provided support.

#### **4.7.3 Confidentiality**

To ensure participant privacy and personal information (150,151) all data and contact information was managed with confidentiality.

Study I: Participants responded to a selection of characteristic questions, but no personal information such as names, contact information, or personal identity number was collected. The paper questionnaires were marked with a code number but only so they could be allocated to the specific home care unit, not to a unique participant. After responding to the questionnaire, the participants dropped it in a locked box at the unit, which a researcher from the team at KI collected. Hence, all participants remained anonymous.

Study II and III. One researcher in the research group managed data from and information about the SDHCS group and the participating older adults. Interview transcripts were assigned code names before being uploaded into the software program. When presenting results and quotes, care was taken to prevent the identification of individuals' unique contexts. In addition, characteristic information about the staff was kept to a minimum to reduce the risk of identification.

Study IV. Personal information about the participating staff and older adults were kept to a minimum. No personal information was collected except from their signed consent forms, which were securely stored in a locked safe box at Karolinska Institutet. The researchers did not have access to the contact information of older adults or staff. Thus, all communication was coordinated by the unit's manager, who forwarded and distributed information and organised meetings. During the focus group, only names and years of work experiences within the organization of home care were shared. Focus group participants also respected the privacy of the older adults receiving their services and retained them from disclosing any personal details when discussing their work.

#### **4.7.4 Methodological and Ethical Considerations**

When conducting qualitative research, ethical considerations must be well-thought-out (152). My personal attributes, such as being a white woman from a specific socio-economic background and highly educated, can affect the power dynamics in the interactions with participants. To address this, I disclosed my professional background as a researcher and occupational therapist with my clinical experience working with older adults. Additionally, it was essential to reflect on power relations and political

positioning throughout the research process (152), particularly in recruitment, data collection, analysis, and presentation of outcomes.

In Study II, recruitment and data collection with older adults introduced ethical complexities due to their often vulnerable situations(150). Feedback from the SDHCS group (IG) highlighted the challenges of providing project information during their first encounter, which often was at the hospital before discharge. At this time point, several older adults were feeling fatigued and stressed about their situation. To address this, we allowed staff to assess the situation and choose when and how to provide information. The involvement of home care staff (IG) or staff from the administration team (CG) in the recruitment process introduced potential power dynamics, which could hypothetically lead to a feeling of discomfort for the older adult. However, the staff only provided initial information, and the older adults' decision was often presented to the researcher/occupational therapist.

The timing of the initial meetings also raised ethical concerns, as some participants felt overwhelmed or fatigued at such an early state, leading to dropouts of participants in both the IG and the CG. This raised questions about the optimal timing of the first assessments. A few participants intended to be included in the IG requested a one- or two-week delay of the initial meeting; however, this was not feasible within the project's timeframes. Hence, a question for future research is how to better time these assessments in regards to ethics as well as enhancing the participation rate. Furthermore, in Study II, the initial meeting and baseline assessment raised other methodological and ethical considerations. These meetings typically lasted 90 to 120 minutes, involving the researcher providing project information, obtaining consent, discussing the older adult's status, setting goals, defining support, and conducting an initial assessment. While researchers suggested the possibility of splitting the meeting into two sessions, most participants preferred to proceed without breaks. This could have influenced the older adults' capability to engage in other activities following the assessment. It could also be that their responses at the end of the assessment might not have been thoroughly considered and may have affected the outcome.

Study III was conducted over a one-year period with the SDHCS group, where they participated in three individual interviews. The potential risk associated with requesting interviews from all staff members may have introduced a sense of obligation to participate, thus undermining the voluntary nature of their participation. Nevertheless, as the interviewer, I consider this risk minimal, as it seemed like the entire group was enthusiastic about discussing their work and experiences, readily sharing their narratives.

As in Study II, home care staff performed the recruitment process of older adults, posing a potential power dynamic. Due to the COVID-19 pandemic, researchers could not meet



with the older adults in person, and therefore, it was organised so the staff was the ones who asked them to participate by sharing information. While it was essential to ensure voluntary participation (150), the distinction between motivating and persuading participants could have been challenging. Although providing information aiming to highlight their needs or requested support for greater autonomy may not appear harmful, however, if older adults feel forced to disclose information, it raises ethical concerns. The pandemic also presented methodological challenges by limiting physical meetings with staff, potentially causing misunderstandings. Arranging regular meetings with the managers intended to address this issue. However, there is always a risk that information is filtered when direct communication is not possible; therefore, this solution might not have been good not enough.

Not only do recruitment and data collection pose methodological and ethical considerations, but this also concerns data analysis and presentation of outcomes.

In Studies I, II, and IV, quantitative data is analysed with inferential statistics. However, some instruments' validity across various factors like gender, culture, and diagnosis raised concerns, although they often are assumed. Another important aspect is the application of the different analyses. Although several tools have ordinal or range data rather than interval, most data are analysed as interval data to compare outcomes with previous research. However, this has resulted in a continuous discussion throughout the process. In future studies, acknowledging these concerns becomes crucial, as we must avoid sticking to old habits if we want to make a difference.

When analysing qualitative data, ethical aspects came into play due to the interpretative nature of the data, and it was essential to consider the political and power-related aspects of interpretation (152). Braun and Clarke (2022) point out that “we always interpret from a position – or an aggregate of positions (...) interpretation is inevitably a political act” (p.214). When interpreting data, meaning making is about making sense of what people say, not only summarising their responses. Therefore, one must reflect and acknowledge these interpretations and what is presented not to cause harm to any participants.

## 5 RESULT SUMMARY OF STUDIES I–IV

This section will present the results from studies I–IV and summarize the paper's outcome and implication.

### 5.1 Study I: Individual and Organizational Factors Influencing Job Strain

Study I contribute with knowledge regarding home care staff's perceived level of job strain and which factors in the psychosocial work environment are associated with the level of job strain. The analysis revealed essential insights that contribute to understanding what factors influence the level of job strain for home care personnel.

#### 5.1.1 Participants

The 226 participants were men and women aged 18 – 67 (mean 48 years) and had worked for 13 years (SD: 9 years, range 0 – 40 years), and 92% had a permanent position. The sample consisted of 80% women (consistent with the national occurrence of gender division for care workers), 60% had Swedish as their first language and 86% had education in caring. No significant differences related to the level of job strain were detected between genders, language, and education. Regarding the participants' psychosomatic health aspects, 72–77% perceived that they were unhappy and depressed, had sleep problems or felt worried and restless. In addition, 68% felt stressed.

#### 5.1.2 Level of Job Strain and Related Factors

The overall perceived level of job strain among the home care staff was assessed to be 4.43 (SD 1.8). Factor 5 (F5), *Lack of recognition*, received the highest job strain rating of 5.34 (SD 2.67). F5 includes factors such as *I want to do much more for older persons than my employers will allow* received the highest job strain score (6.55) of all items in the SDCS questionnaire. Other highly rated factors in F5 included the perception that their work was not valued by others (4.83) and the belief that families of older adults did not understand the difficulty of caring for their relatives (5.70) (Table 7).

In addition to F5, factors related to *Balancing emotional involvement* (F4) and *Balancing competing needs* (F3) also contributed significantly to a higher job strain. Home care staff perceived that older adults were highly dependent on them (5.71) and that they had to prioritize tasks based on urgency rather than the actual needs of the older adults (5.17). These findings can be linked to the concept of *Frustrated empathy* (F1), where staff perceived that older adults were suffering (5.95) and that older adults were not receiving the care they were entitled to (5.79) (Table 7).

The analysis also aimed to uncover the factors contributing to job strain among home care staff, considering individual, organizational, and psychosomatic health factors. Six multiple linear regression (MLR) models were conducted to assess the contribution of specific factors to job strain. The results showed that the identified factors could explain 39% to 51% of the variance ( $R^2$ ) to high job strain ( $p=0.001$ ). The organizational factor of Job Demand was associated with all six MLR models, and the individual factor psychosomatic health aspect 3 (PH3), referring to feeling worried and restless, was associated to five of the six models (Table 8).

The Job Demand subscale of the QPS questionnaire comprises four key questions. Two of these questions pertain to the perception of having an excessive workload and tasks piling up, while the other two focus on whether tasks are considered being too difficult and whether additional education is required to perform the work tasks. Regarding the aspect of a high workload, our findings indicate that a substantial percentage of respondents, ranging from 70% to 85%, agreed that they often had too much to do and that their workload tended to accumulate. While their perception of possessing the necessary knowledge and training to execute their work tasks was assessed, approximately 70% to 75% of respondents did not find their work too challenging and did not believe that further training was required. Furthermore, in the subscale *Control at Work*, a significant proportion, 85%, of the staff reported that they sometimes or never were able to influence various aspects of their work, such as the amount of work, the work phase, breaks, or important decisions.

Examining the outcomes regarding the two QPS subscales, Organizational Culture and Climate and Leadership, the analyse revealed the following insights:

- Only 45% of the home care staff felt involved and had the opportunity to participate in important decisions within the organization.
- Similarly, 45% reported not feeling adequately supported in developing their skills.
- A slightly higher percentage, 55%, did not perceive that the organization's management showed a significant interest in the health and well-being of the personnel.
- The perception of the workplace climate was mixed: approximately one-third of respondents agreed that the climate was encouraging and supportive, relaxed and comfortable and that they were encouraged to think of ways to improve work processes. Approximately one-third disagreed with these statements, while one-third responded with "sometimes."

In summary, the findings indicate a complex interplay of individual, organizational, and psychosomatic health factors contributing to job strain among home care staff. The regression models provided valuable insights into the significance of various factors in

explaining job strain in this profession. In addition, our analysis of the QPS subscales provides insights into the challenges and strengths within the organizational culture and leadership climate experienced by home care staff. These findings contribute with evidence that there is a need for improved participation in decision-making, skill development support, and attention to personnel's health and well-being within the organization.

**Table 7.** Outcomes of the SDCS. The total job strain and sub-factors 1–3 (F1–F3), as presented in Study I.

| SDCS  | Sample | Min–Max      | Mean (SD)   | ( $\alpha$ ) |
|---|--------|--------------|-------------|--------------|
| <b>Total job strain</b>   | 226    | 1.05 – 9.99  | 4.43 (1.88) | 0.94         |
| <b>F1: Frustrated empathy</b>   | 226    | 1.00 – 14.86 | 4.73 (2.26) | 0.85         |
| I see other staff behaving toward an older person in ways that show they do not understand the effects of dementia                            |        |              | 5.33        |              |
| I see that an older person is suffering   |        |              | 5.95        |              |
| Older persons do not receive the care I feel they are entitled to   |        |              | 5.79        |              |
| I see the families of older persons suffering   |        |              | 4.25        |              |
| I see older persons being mistreated by their families  |        |              | 4.04        |              |
| I see other staff treating older persons badly  |        |              | 3.26        |              |
| Other staff tries to change what I have done for an older person  |        |              | 4.47        |              |
| <b>F2: Difficulties understanding and interpreting</b>  | 226    | 1.00 – 8.29  | 3.08 (1.66) | 0.85         |
| I have difficulties understanding what older persons are thinking   |        |              | 3.70        |              |
| I have difficulties understanding what older persons are trying to communicate  |        |              | 2.91        |              |
| I have difficulties understanding older persons' needs  |        |              | 2.69        |              |
| I find it difficult to know what is best for older persons  |        |              | 2.97        |              |
| I worry I might upset or hurt older persons because I do not understand their needs   |        |              | 3.08        |              |
| I cannot understand why older persons behave the way they do  |        |              | 2.90        |              |
| I find it difficult to explain to older persons what is happening in situations which may upset them (e.g., showering, bathing, or toileting) |        |              | 3.28        |              |
| <b>F3: Balancing competing needs</b>  | 226    | 1.00 – 11.60 | 4.53 (2.28) | 0.78         |
| I must balance the needs of the older person against the needs of his or her family   |        |              | 4.57        |              |
| I must balance the needs of the older person against the needs of other older persons   |        |              | 4.58        |              |
| I must prioritize on the basis of urgency rather than fairness or the needs of older persons  |        |              | 5.17        |              |
| Older persons resist the care I want to provide   |        |              | 4.55        |              |
| I must balance the safety of older persons against their quality of life  |        |              | 3.77        |              |

**Table 7. Continuing with subfactors F4–F5.** The total job strain and sub-factors 1–3 (F1–F3), as presented in Study I.

| SDCS   | Sample | Min-Max      | Mean (SD)   | ( $\alpha$ ) |
|--|--------|--------------|-------------|--------------|
| <b>F4: Balancing emotional involvement</b>   | 226    | 1.00 – 13.50 | 4.51 (2.31) | 0.73         |
| When an older person dies or must move, I feel as though I have lost a relative or close friend    |        |              | 4.09        |              |
| I feel that older persons are highly dependent on me   |        |              | 5.71        |              |
| I wish I knew more about older persons so that I could understand them better                      |        |              | 4.24        |              |
| I cannot stop thinking about older persons when I am away from work                                |        |              | 3.80        |              |
| <b>F5: Lack of recognition</b>   | 226    | 1.2 5– 14.25 | 5.34 (2.67) | 0.70         |
| I feel that my work is not valued by others  |        |              | 4.83        |              |
| I want to do much more for older persons than my employers will allow                              |        |              | 6.55        |              |
| My employers do not appreciate the work I'm doing  |        |              | 4.28        |              |
| Families of older persons do not seem to understand how difficult it is to care for their relative |        |              | 5.70        |              |

Note: Possible scoring 1–16. Higher scores indicate higher level of job strain. Table copied from Assander et al., 2022 (127), with permission from author.

**Table 8.** The six MLR models with the related individual and organizational factors.

| Dependent variable<br><br>Independent variables | MLR 1               | MLR 2               | MLR 3               | MLR 4               | MLR 5               | MLR 6               |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|   | SDCS                | F1                  | F2                  | F3                  | F4                  | F5                  |
|   | R <sup>2</sup> .507 | R <sup>2</sup> .389 | R <sup>2</sup> .200 | R <sup>2</sup> .399 | R <sup>2</sup> .427 | R <sup>2</sup> .456 |
| Job Demand (Org.)                               | X**                 | X*                  | X**                 | X**                 | X**                 | X**                 |
| Role Expectation (Org.)                         |                     | X*                  |                     | X*                  |                     |                     |
| Social Interaction (Org.)                       |                     |                     |                     | X*                  |                     |                     |
| Org. Culture and climate (Org.)                 |                     | X**                 |                     | X***                |                     | X*                  |
| Item 9 (Org.)                                   | X**                 |                     |                     | X*                  |                     | X*                  |
| Item 16 (Org.)                                  |                     | X*                  |                     | X*                  |                     |                     |
| Item 32 (Org.)                                  |                     | X**                 |                     |                     |                     |                     |
| Item 35 (Ind.)                                  |                     |                     |                     | X**                 |                     |                     |
| Item 37 (Ind.)                                  | X***                |                     |                     |                     | X**                 | X*                  |
| PH1 (Ind.)                                      | X*                  |                     |                     |                     |                     |                     |
| PH3 (Ind.)                                      | X*                  | X**                 | X**                 |                     | X**                 | X**                 |
| Education level (Ind.)                          |                     |                     |                     |                     |                     | X**                 |

Note: MLR=Multi Linear Regression. F=factor. Org=organizational factor, Ind.=Individual factor. Item 9=receiving incompatible requests, Item 16=, Item 32 =perceiving inequalities how men and women are treated, Item 35=likes to be absorbed in my job most of the times, Item 37=Feeling stressed (tense, restless, nervous, anxious or unable to sleep), PH =psychosocial health aspect. PH1='feeling unhappy and depressed', PH3='feeling worried and stressed'. R<sup>2</sup>=variance. Significant levels are set to: \*<0.05 and \*\*<0.01. \*\*\* Included for showing clinically significant level

Note: The Table is modified from Assander et al 2022 (127), with permission from author.

## 5.2 Study II: Feasibility Evaluation of the ASSIST 1.0 Reablement Program

The primary objective of Study II was to evaluate the feasibility of the ASSIST 1.0 reablement program, examining aspects of outcome measures, program fidelity, adherence, and acceptability. The evaluation involved a combination of quantitative and qualitative assessments, contributing to insights into the program's feasibility.

### 5.2.1 Recruitment and Participation

Within a one-year period, older adults were enrolled either to the IG or CG. The SDHCS group and the staff from the administration team identified a total of 75 potential participants. However, 53 of these individuals were excluded after discharge. In total, 22 older adults were enrolled: ten to the IG and twelve to the CG. Out of these 22 older adults, three persons in the IG and two in the CG terminated their participation. In the end, 17 participants completed their involvement in the study, giving a dropout rate of 30% in the IG and 17% in the CG. Participant characteristics are presented in Table 9.

Several factors influenced recruitment and retention. Some older adults refused the granted home care (an inclusion criterion) and were declined to participate. While others were feeling fatigued or overwhelmed due to an influx of new contacts upon discharge or were readmitted to the hospital.

**Table 9.** Characteristics of participants in the intervention group (IG) and control group (CG).

| Variables             | IG (n=7)   | CG (n=10)  |
|-----------------------|------------|------------|
| Gender                |            |            |
| Female                | 5          | 7          |
| Age, median [range]   | 87 [78–94] | 86 [70–92] |
| Civil status          |            |            |
| Married               | –          | 3          |
| Living apart          | 1          | –          |
| Living along/widow-er | 6          | 7          |

### 5.2.2 Outcome Measures

Twelve self-assessed instruments were included to assess older adults' ADL performance, mobility at home and in society, self-efficacy, health, and well-being. The results demonstrated that eight instruments were sufficiently sensitive to detect perceived changes over the 10-week period, both within and between the groups. This sensitivity was reflected in statistically significant or clinically significant differences between baseline and the ten-week follow-up assessments. The instruments that displayed such sensitivity were the COPM, the EQ-5D, EQ-VAS, Barthel/KATZ index, Self-Efficacy Scale (SES), Reintegration to Normal Living Index (RNLI), Life Satisfaction Assessment (LiSat 11.1), and Hospital Anxiety and Depression Scale (HADS). Of these, only

COPM, EQ-5D and EQ-VAS detected clinically and statistically significant differences within and between the groups (see Table 10 and Table 11 for details).

**Table 10.** Mean differences within the intervention group (IG) and control group (CG).

| Instruments | The mean difference between baseline and the ten-week follow-up assessment within each group and if the difference is statistically and/or clinically significant. |         |                 |                      |         |                 |
|-------------|--|---------|-----------------|----------------------|---------|-----------------|
|             | IG   |         |                 | CG                   |         |                 |
|             | Mean difference (SD)   | P-value | Clinical change | Mean difference (SD) | P-value | Clinical change |
| COPM-P      | 3.37 (2.28)  | 0.01*   | +               | 2.91 (3.73)          | 0.06    | +               |
| COPM-S      | 4.40 (2.98)  | 0.01*   | +               | 3.23 (2.93)          | 0.02*   | +               |
| EQ-5D       | 0.31 (0.27)  | 0.02*   | +               | 0.18 (0.36)          | 0.15    | +               |
| EQ-VAS      | 22.14 (5.67)   | 0.00*   | +               | 6.80(18.83)          | 0.25    |                 |
| Barthel     | 27.85 (29.56)  | 0.05*   |                 | 11.50 (7.47)         | 0.00*   |                 |
| KATZ        | 2.43 (2.76)  | 0.06**  |                 | 1.40 (1.84)          | 0.04*   |                 |
| SES         | 33.50 (38.65)  | 0.09**  | +               | 30.10 (25.77)        | 0.01*   | +               |
| RNLI        | 4.43 (4.27)  | 0.03*   |                 | 1.30 (7.07)          | 0.58    |                 |
| LiSat. 11.1 | 5.71 (1.27)  | 0.28    | +               | 0.56 (0.73)          | 0.05*   |                 |
| HADS-A      | 0.00 (2.52)  | 1.00    |                 | -1.60 (1.51)         | 0.01*   |                 |
| HADS-D      | 0.00 (2.94)  | 1.00    |                 | -1.50 (2.59)         | 0.10    |                 |

Note: \*Statistically significant difference  $p < 0.05$ . \*\* Statistically significant difference  $p < 0.1$ . + indicates a clinically significant change. The Table is modified from Assander et al. (153), with permission from author.

**Table 11.** Mean difference between the intervention group (IG) and control group (CG).

| Instrument | Comparison of the mean difference between the groups |       |         |                 |       |         |
|------------|--|-------|---------|-----------------|-------|---------|
|            | Baseline   |       |         | After ten weeks |       |         |
|            | IG   | CG    | P-value | IG              | CG    | P-value |
| COPM-P     | 4.22   | 2.55  | 0.05*   | 7.68            | 7.25  | 0.84    |
| COPM-S     | 3.47   | 2.8   | 0.46    | 7.87            | 5.76  | 0.15    |
| EQ-5D      | 0.13   | 0.36  | 0.20    | 0.43            | 0.54  | 0.49    |
| EQ-VAS     | 40   | 57.70 | 0.12    | 62.12           | 61.50 | 0.95    |

\*Statistically significant difference  $p < 0.05$ . The Table is modified from Assander et al. (153), with permission from author.



### 5.2.3 Fidelity and Adherence

The evaluation of fidelity and adherence to the program was based on interviews with nurse assistants in the SDHCS group and the older adults participating in the program and monitoring the alignment with the intended study design.

Concerning following the study design, minor changes had to be made. The occupational therapist intended to have coaching sessions with the staff while working in the homes of the older adults. However, this component became difficult to organise due to the limited two weeks with the SDHCS and limited time with the occupational therapist in the program. Instead, the coaching sessions were merged with the workshop, where the SDHCS group could discuss their work conducted with the older adults.

Working with reablement and adopting a goal-oriented approach, which involved setting clear goals and defining support strategies to achieve these goals, was perceived as novel and valuable by the nurse assistants. Besides this, all program components could align with the existing work and be woven into the context. Notably, although the workshops were conducted regularly, one-third of the scheduled sessions were cancelled by the SDHCS group. The reasons for this were mainly the need for reprioritizations to support older adults. Although the workshops were scheduled at the last hour of the SDHCS group's work day, they sometimes needed additional time with the older adult. Since they only were three persons in the SDHCS group, the goal was to give sessions when everyone could participate.

In relation to the older adults, the twelve questionnaires were regarded as being too massive – for both the older adult and the assessor. Besides the questionnaires, during the baseline assessment, the assessor informed about the project and retrieved informed consent took an anamnesis and collected characteristic data. At the 2<sup>nd</sup> follow-up, when the questionnaires were responded to, the assessor conducted a short interview with the older adult. The baseline meeting took 90–120 minutes, while the 2<sup>nd</sup> follow-up took 60–90 minutes.

### 5.2.4 Acceptability

The ASSIST 1.0 program was considered acceptable by the staff and manager of the SDHCS. Its design and core reablement concept was found to align well with the existing work of SDHCS, making it feasible for implementation. Acceptability was evaluated in relation to three key aspects: '*Personalized Goal Setting with COPM*', 'workshops and coaching', and the intended ICT component – 'QR code'.

*Personalized Goal Setting with COPM.* The introduction of working with goals set by the older adults was considered new and inspiring for the SDHCS group. Using the COPM to identify challenges in everyday activities, develop goals, and determine what and how

the support would be provided proved to be a practical approach. Using COPM demonstrated that older adults could consider a diverse range of activities as problematic, and how tailored support to address these challenges could facilitate goal attendance and improved outcomes.

*Workshops and Coaching with an Occupational Therapist.* As previously described, the intended coaching sessions with the staff while working with the older adult encountered challenges and were subsequently integrated into the workshop sessions, which were found acceptable by the staff. They considered these sessions valuable for acquiring new information, being updated, and gaining knowledge about reablement practice. Having an occupational therapist to guide and support nurse assistants during the workshops fostered reflective discussions among the nurse assistants about their work strategies, principles of reablement, and the significance of having and applying a person-centred approach. Discussing with an occupational therapist also supported to deepen the understanding of the goal-setting process and how to develop their support to enhance the alignment with the older adults' wishes and needs to engage in meaningful activities (occupations).

*QR code.* The use of QR codes was met with curiosity and interest and was considered an acceptable method for sharing information. QR codes were deemed to facilitate seamless information sharing between the SDHCS group, regular home care providers, healthcare professionals, and other important individuals involved in the care process of the older adult. Additionally, QR codes were considered to be discrete, having the possibility to protect integrity and privacy, and were appreciated for their user-friendly characteristics.

In summary, this study contributes to knowledge of how home care staff and occupational therapists can effectively collaborate to provide tailored support, through reablement, to older adults living at home. Furthermore, the study contributes insights into how QR codes can facilitate knowledge management where older adults' goals and requested support are emphasized. Although the practical evaluation of using QR codes in the ASSIST 1.0 program was limited, the nurse assistant and their manager recognized the potential for QR codes to facilitate communication between different caregivers, older adults, and their significant others.

### 5.3 Study III: Applying Theories and Models to Evolve the Implementation of Reablement

Study III contributes with knowledge of how theories and models, as well as concepts and definitions, can provide a framework for and understanding of the ASSIST 1.0 program design, underpinning ideas and inform what to do and how to apply the intended components. These insights were gained through analysing the reflections and reasoning of the nurse assistants in the SDHCS. The overarching theme from the analysis was how reablement was understood and applied in the context where the SDHCS worked. The outcomes were presented in three subthemes: i) Reflecting with an occupational therapist to gain new perspectives, ii) Progressing towards a person-centred goal setting, iii) Using evidence-based research to differentiate reablement

The conversation during the interviews revolved around the workshops with the occupational therapist, the collaboration with the older adult and how the nurse assistants view and reflect on their work strategies. The study explores the nurse assistant's perspective on their work, how the ASSIST 1.0 program influenced them, how the organizational structure impacts one's ability to do the intended work, and the wish to continue to evolve in their profession. At the workshop, the occupational therapist encouraged the nurse assistants to discuss their experiences and aimed to create awareness of their actions. In addition, when being interviewed, they had to reflect upon the workshops and if they were aware if they had gained something with the work in ASSIST.

Reflecting with the occupational therapist was considered valuable for the nurse assistants as it enabled regular contact with an occupational therapist, which was seen as both a resource and inspiration for their work. They also considered the meetings with the occupational therapist to be an opportunity to retrieve information and new knowledge, contributing to their professional development. Another valuable aspect was to reflect upon their work with the older adults and how their support could be further developed.

*Progressing towards a person-centred goal-setting* concerns how the nurse assistants changed their goal-setting praxis. In the first interview round, the nurse assistants independently explained how an overarching goal was determined by the welfare officer (who granted the home care service), which focused on the idea that the older adult would become independent in specific ADLs. The goals were then adapted by the SDHCS group and sometimes modified based on their observations of and dialogue with the older adult. However, the nurse assistants explained that they were the ones who identified the older adults' needs and provided support accordingly. Later on, in the initial workshops, the occupational therapist explained the goal-setting process in ASSIST, where she used the COPM to structure the conversation with the older adult to

identify which activities the older adults prioritized and wanted to perform. The goals that the older adult set, based on the COPM, and the support the older adult wanted to receive to reach the goals were shared with the nurse assistants. In the second and third interview rounds, it was discussed if the nurse assistants had modified their work regarding goal setting with older adults during ASSIST 1.0. All three nurse assistants said they had changed how they worked with goals, inspired by the technique that the occupational therapist applied. They now sat down with the older adult and talked about what was important for the older adult and what goals they wanted to have. In addition, some nurse assistants also asked the older adults about activities that might be important for them beyond self-care and mobility, such as drawing. Furthermore, by talking about what the older adult wanted to do and what goals were important to them, the nurse assistants also perceived that the dialogue about the goals made the work more concrete for them and the older adult. A person-centred goal-setting strategy was perceived as motivating and essential in their work. It became a strategy to enhance the collaboration between the nurse assistants and the older adults.

*Using evidence-based research to differentiate reablement* was about how previous research about reablement was used to understand what reablement is, discuss concepts and how to apply reablement in this specific context. It also included information about the process of conducting COPM to identify meaningful activities and develop goals based on these. An essential aspect in this context was to discuss the difference between reablement and the Swedish approach to everyday rehabilitation. In the second and third interviews, the nurse assistants reasoned about the differences, where they considered reablement to more clearly focusing on the older adult's wishes and needs to perform or participate in any activity of their choice, while everyday rehabilitation was more about mobility, strength and support the older adult to become independent but primarily in self-care activities. The nurse assistants also expressed that by understanding the goal-setting process based on COPM, they understood that it could be the small things in an activity that were important for the older adult and to enable the older adult to do certain parts of an activity independently, when they wanted to.

Study III discusses the need for theories and models to underpin reablement programs to facilitate the implementation and if the applied theoretical framework can be mirrored in the nurse assistants' reflections and reasoning on their work and the ASSIST 1.0 program. Clear strategies are required to develop a shared understanding of *what* reablement entails and *how* reablement should be provided. In addition, it is essential that everyone involved, regardless of their profession, who provides reablement understands these constructs. Theories and perspectives derived from occupational therapy can be essential to differentiate reablement from other rehabilitation services, where meaningful occupations guide the process. Furthermore, for a successful

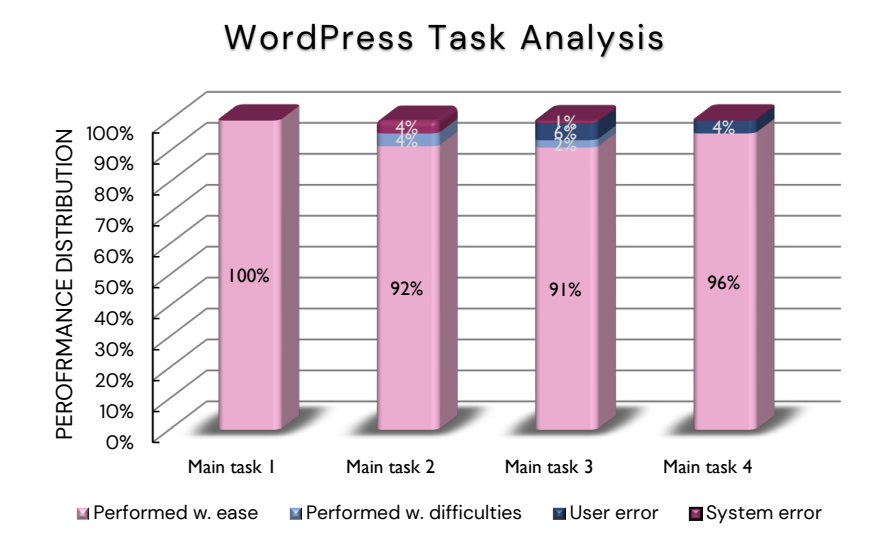
implementation, there is a need for occupational therapists (and physiotherapists) to facilitate professional development, especially for nurses' assistants, regarding how to strengthen the person-centred approach, strategies for goal setting, and to support the transition to an occupation-focused approach where meaningful occupations are the key to health and well-being.

## **5.4 Study IV: QR Codes to Facilitate Digital Knowledge Management Within a Home Care Organization**

Study IV explores the usability and user experience of an ICT system containing a QR code and a CMS, WordPress, to enhance knowledge management regarding older adults' wishes and needs for support from home care staff. The outcomes have two focus areas. The first outcome focusses on how a group of home care staff (unit 1) perceived the usability of the ICT system when performing the two task tests. The second outcome concerns how a sample group of staff from another home care unit (unit 2) and three managers reasoned and discussed the user experience with the ICT system in their everyday work and how the ICT system could facilitate knowledge management.

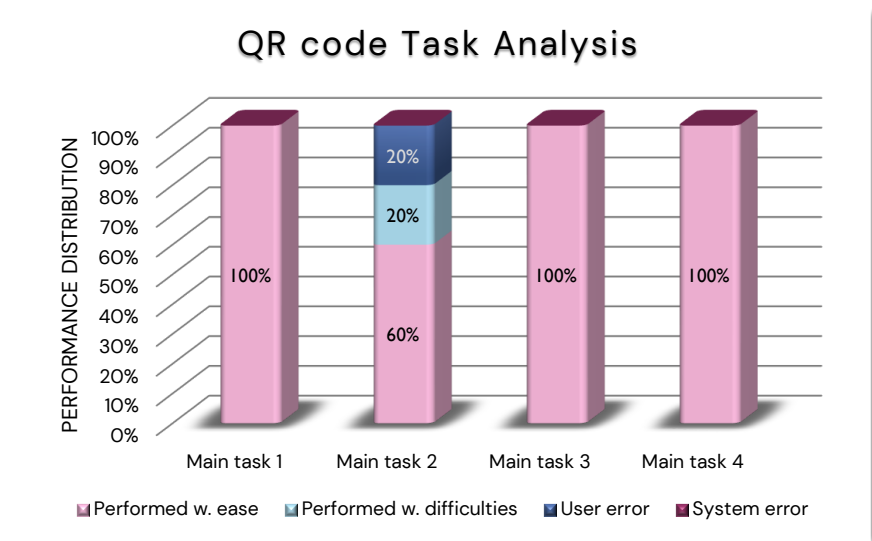
The usability test was successful, considering the effectiveness and efficiency of both the QR code and the CMS (Figures 6 and 7). This outcome was also confirmed in the focus group interview with the staff who had used the technology in their everyday work. How to use the QR code was easy to understand, and the homepage accessible via the QR code was easy to navigate and readable. Regarding the satisfaction of using the ICT system, the outcomes differed between Unit 1 and Unit 2. Unit 1 was satisfied with the design, layout and readability of the information on the home page and that the two ICT components were easy to use. Although Unit 2 was satisfied with these aspects, their evaluation of QR code using the SUS ranged from 20–60 with a median of 52.5, where a sum of 68 is deemed sufficient. In addition, the outcome for the SUS VAS was not conclusive with varying responses. Even so, the overall outcome of the usability indicates that the ICT system is effective, efficient, and satisfactory.

**Figure 6.** WordPress webpage task test. Performance in the four main tasks, n=6 (100%).



Note: Main task 1 includes four subtasks. Main task 2 includes four subtasks. Main task 3 includes twenty-one subtasks. Main task 4 includes four subtasks.

**Figure 7.** QR code task test. Performance in the four main tasks, n=5 (100%).



Note: Main task 1 includes one subtask. Main task 2 includes one subtask. Main task 3 includes five subtasks. Main task 4 includes one subtask.

Regarding the user experiences and the potential to facilitate knowledge management with the QR codes, the opinion differed between Unit 1, Unit 2, and the managers. Unit 2 considered the QR codes to be an extra momentum in their work which did not provide new or relevant information for them in their work with the older adult. The reason for this is that they considered themselves knowing what the older adult needed or wanted. Since the information in the QR code did not change over the weeks, they also knew what information was accessible. Even so, all participants agreed that the QR codes could be beneficial to accessing information about older adults' preferences, needs and wishes to temporary staff, healthcare professionals, and significant others. They also reasoned that if everyone had access to *what* and *how* the older adult wanted to be supported in given activities, it would presumably enhance the person-centred support. Additionally, the staff in Unit 2 expressed a need for greater transparency among those involved in providing care and support to older adults, a goal that the QR code could theoretically facilitate. Unit 2 and the managers also considered it likely that the ICT system could remove communication barriers regarding retrieving or accessing information between different stakeholders.

This study suggests that the evaluated ICT system might have the potential to facilitate efficient knowledge management in the context of home care by enabling barrier-free communication between home care staff, healthcare professionals, older adults and their significant others. In addition, it would presumably strengthen the person-centred approach by highlighting the older adult's needs, wishes and requested support. This is in line with research conducted in other settings where efficient digital knowledge management systems can improve communication between stakeholders, facilitate information sharing and highlight knowledge by the clients (108). Innovative ICT and knowledge management systems must be explored to enhance interprofessional collaboration when delivering care and support to older adults living at home.



## 6 DISCUSSION

The overall aim of this thesis is to contribute to the evolvement of reablement in home care services using theory, occupational perspectives, and welfare technology to promote healthy ageing in place.

The finding from each study contributes with insights into how reablement can evolve by gaining knowledge about the home care staff's perceived psychosocial work environment, the feasibility of the reablement program ASSIST 1.0 in the setting of home care, how theories and models can support the development and understanding of the reablement program ASSIST 1.0, and how a novel ICT system can support digital knowledge management within the organization of home care to facilitate reablement. In the pursuit of evolving the reablement approach in the context of home care for older adults, there is a need to explore and clearly describe applicable theories, concepts, and designs of reablement programs. Furthermore, by evolving reablement, there might be potential to understand better how healthy ageing and ageing in place can be enhanced.

The discussion will focus on different perspectives on how reablement can be evolved, constituted by four subchapters: Evolving reablement through occupational perspectives, Evolving reablement with theories, Evolving the definition of reablement, and Evolving reablement with welfare technology. I will then synthesize these facets into a discussion about reablement as a new approach in the Swedish health and social care system, relating to the Swedish agenda of 'integrated and person-centred care' and the aspects of healthy ageing.

## 6.1 Evolving Reablement through Occupational Perspectives

In the background, I presented the interconnected occupational perspectives of 'doing', 'being', 'becoming', and 'belonging'. These concepts have a fluid and dynamic relationship, complexly dependent on various circumstances. With these perspectives, I intend to challenge the prevailing biomedical paradigm of elderly care and reablement, where the emphasis revolves around 'doing' – specifically, the *performance* of daily activities and its connection to *independence*. I will demonstrate how the current context requires a reinterpretation to align with the biopsychosocial<sup>15</sup> approach. This will be exemplified by discussing the symbiotic relation between home care staff and older adults through an occupational lens by aligning the outcomes from Studies I–IV with the theoretical framework of 'doing', 'being', 'becoming', and 'belonging'.

The service and support provided by home care are constructed around activities that older adults cannot independently perform (46). The construct of independence in activities is also valid for reablement. In the newly proposed definition from the Delphi study, Metzelthin et al. (87) highlight that reablement intends to “enhance an individual's physical and/or other functioning” and “increase or maintain their independence (...) to reduce their need for long-term services” (87). Although focusing on physical and/or other functioning, independence, and the reduced need for services is well-intentioned, it falls short of capturing the full spectrum of older adults' needs and wishes and misaligns with the biopsychosocial approach. We should broaden our perspective beyond mere 'doing' to acknowledge older adults' aspirations. Likewise, we should consider what is necessary for home care staff to develop as professionals by considering what they *do* and who they consider themselves to *be*. In addition, to affect real change in the social care system, we should delve into whom older adults and home care staff aspire to *become* and in which contexts they seek to *belong*, to find meaning. Integrating the concept of 'being', 'becoming', and 'belonging' can significantly influence our view of 'doing' and ultimately reshape how care and support is provided.

Considering the challenges home care staff face in the current societal landscape, marked by an ageing population and dwindling staffing levels, the work environment can create barriers to *be* or *becoming* the professionals they intend to be. Research has highlighted the demanding nature of home care staff and their complex psychosocial work environment (54,110,127). Study I contribute with evidence regarding factors that influence these demands, where home care staff feel restricted in deciding and influencing the amount of work assigned to them and setting their own work pace. Furthermore, they perceive themselves as not receiving the support they require from

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<sup>15</sup> Biopsychosocial Model: “way of understanding how suffering, disease, and illness are affected by multiple levels of organization, from the societal to the molecular (...) understanding the patient's subjective experience as an essential contributor to accurate (...) health outcomes, and humane care.” (158, p576)

their superiors to develop needed skills. Other factors that contributed to the home care staff's perception of a high job strain included that they *must prioritize on the basis of urgency rather than fairness or the needs of older persons, must balance the needs of the older person against the needs of other older persons, that an older person is suffering, and Older persons do not receive the care that home care staff feel they are entitled to*. In addition, the item generating the highest job strain in Study I was *I want to do much more for older persons than my employers will allow*. Hence, to be or become the professionals they aspire to, they would require time, resources, and a higher degree of trust and autonomy to perform their intended services. The challenges encountered by the home care staff, such as frustrated empathy, competing needs, and a lack of recognition, can be factors that hinder their professional development, which consequently can contribute to high turnover rates. The adverse psychosocial work environment could also be a reason for sick leave and early retirement. However, it could also affect the quality of care provided to older adults, which previously has been acknowledged (56,67).

The *being* of home care staff as professionals can be intertwined with their ability to fulfil their roles, which systemic constraints can limit. The home care staff's strain situation could presumably also impact the ability to provide person-centred support tailored to older adults' wishes and needs. Being able to provide timely and appropriate support (as suggested by WHO) to older adults and focus on their well-being can hypothetically strengthen the sense of *being* and *becoming* among home care staff, and maybe also their *belonging*. Furthermore, it could foster a strengthened professional identity and facilitate professional development. This reasoning could be supported by reflecting on the context of the nurse assistants in the SDHCS group (Studies II and III). Their perception of the situation suggested a more positive psychosocial work environment. In this environment, professional development might be enhanced through reduced time constraints, adjusted resources in relation to the number of older adults receiving their service, and increased trust and autonomy in organizing their workday and interaction with the older adults. Previous research has highlighted that care staff working with reablement perceive being able to meet the older adults' needs, receive support from their manager, and are less likely to leave their positions (154,155). Hence, when providing reablement, the person-centred approach cannot be disregarded as adequate time has to be given to facilitate this approach.

Furthermore, ethical considerations are revealed when professionals' becoming is compromised by the existing system, which may prompt individuals to explore opportunities for professional growth in other work settings or organizations. To address these concerns, creating work environments that nurture growth and development for home care professionals is essential. Another aspect to consider is when home care staff feel they lack opportunities for professional development when having their sense

of being and becoming constrained. These synergies have the potential to be a downward spiral. When home care staff are restrained by the system of providing adequate and satisfactory services to promote older adults' health, it can result in negative subjective feelings and increased job strain. Consequently, this limitation can impede the output from home care staff, ultimately affecting the provision of services to the older adult. A recent study assessed how the perceived job strain of home care staff was associated with older adults' perceptions of the care they received, where a higher perceived job strain by home care staff resulted in perceived lower quality of care by the older adults (156). Indicating that when systematic restrictions are imposed on home care staff and when dealing with a demanding psychosocial work environment, it can directly impact the opportunities for older adults to age in place or be their possibility for healthy ageing. As a result, it restricts the potential for home care staff and older adults to *do, be, become, or belong*.

Although these synergies can be a downward spiral, it could also be reshaped to enable an upward spiral that facilitates growth and healthy ageing if new approaches and methods are implemented. With a decreasing workforce, resources must be strategically allocated to enable as many older adults as possible to engage and participate in meaningful everyday activities. In aspiring to enable ageing in place and healthy ageing, there is a need for a stronger person-centredness. It must be acknowledged that some individuals may require more extensive services, while others may only require short-term support to regain their functional abilities in meaningful activities; either way, they should gain adequate support for ageing in place.

Acknowledging an individual's desired path of *becoming*, where, and how they want to *belong* would enhance the person-centred approach when supporting older adults. It could supposedly also broaden the professionals' understanding that a person's life is beyond their capabilities. People are more complex than their abilities at a given moment; what they can or cannot do does not necessarily define who they are or their aspirations of whom they want to *become* or *do to belong*. Empowering individuals to participate in occupations that contribute to their health is essential (12) and should be considered a central outcome of reablement.

To distinguish reablement from other rehabilitation approaches the goal-setting strategy should evolve beyond merely focusing on performance and participation. Instead, it could be considered to acknowledge the person's aspirations of *being, becoming, and belonging*. Hence, it implies that some goals could concentrate on fostering a sense of *belonging* in a specific context or emphasise what or who a person wants to *become*.

In conclusion, this subchapter transcends the traditional paradigm of elderly care by recognizing the complex interplay between 'doing', 'being', 'becoming', and 'belonging'. Effectively promoting healthy ageing and reablement requires moving beyond the mere act of *doing*. Instead, we should consider these four occupational perspectives holistically with the individual needs, desires, and requirements of each older adult who receives home care. This shift in perspective holds the potential to redefine and enhance the quality of care provided to older adults, thereby significantly contributing to the well-being and autonomy of both home care staff and the older adults they support.

Two other occupational perspectives that, to some extent, are visible in research concerning reablement are *enabling* and *engagement*. The intention of reablement is to engage and enable individuals to participate in activities. Adding occupation (occupational engagement and enabling occupations) would strengthen the aspiration to facilitate individuals to identify meaningful occupations that could be a driving force for regaining, maintaining, or improving their functional abilities and participation in occupations. If the vision is to *enable* healthy ageing and AIP, I consider that we have to enable individuals to engage in occupations they want and need to do or participate in.

An aspect that might become vivid in this discussion is the significance of *occupations*. What permeates ASSIST 1.0 and this thesis is the emphasis on occupations – as a mean, guide, and outcome. Hence, it is an occupation-based and occupation-focused program. Occupation is the essence. ASSIST 1.0 intends to promote engagement in occupation to promote health. Occupation occurs when the persons engage with their environment, which illustrates their functional abilities. It is the older adult's wishes and needs to engage in occupations (or activities) that direct the path of the person-centred intervention. Furthermore, it is the person's subjective perception of how they can engage in occupations that are assessed.

By underpinning reablement with an occupation-based and occupation-focused approach and applying the conceptual views of *being*, *becoming*, and *belonging*, in addition to *doing*, maybe reablement could become more rooted and, for others, more evident in the biopsychosocial approach. Furthermore, it would contribute to the evolvment of a unique rehabilitation approach.

## 6.2 Evolving Reablement with Theories

The progression of reablement requires a solid understanding and rooting of its theoretical foundations. When theories and concepts are clearly described, it enhances effective communication of research findings and advocates the advancement of reablement. Since theories guide practise (157), this subchapter will delve into a reflection and discussion on how theories can contribute to understanding the intentions and deliverables of reablement. It will also explore how theories can underpin reablement, their practical application, and how they can contribute to the evolution of reablement by drawing insights from the development of ASSIST 1.0, Studies II–IV, and reflections on existing research.

### 6.2.1 Knowledge about Theories and Concepts Applied in ASSIST 1.0

A unique aspect of ASSIST 1.0, compared to several other reablement programs, is its founding on theoretical frameworks and the presentation of these theories (51,153). ASSIST 1.0 is anchored in CMOP-E, the Do-live-well framework, self-efficacy theory, and reflexive learning (51,153). Additionally, the goal-setting strategy takes its stance from COPM, the standardized assessment tool connected to CMOP-E.

Existing research is spares with presenting and explaining the application and use of theories in reablement (158), making it difficult to compare programs and their outcomes. In ASSIST 1.0, the theories provide a vocabulary and a frame for its purpose and guided information, such as what the program's key components were and what home care staff and occupational therapists (and potentially other healthcare professionals) should focus on when supporting older adults. The theories also supported the reasoning in questions of *how*, such as *how* to tailor the support, *how* to collaborate with the older adult, *how* to facilitate the support, and *how* to enable participation in wanted or needed activities/occupations. In the ASSIST 1.0 program, the terminology from theories and concepts were also discussed at the workshops with the SDHCS group (Studies II and III), such as what was meant by having a person-centred approach, meaningful occupations, and enabling participation. Additionally, the theories and the COPM guided the “how” in the goal-oriented support process, e.g., how goals with older adults were developed and how to tailor the requested support based on the older adult's wishes, needs, and functional ability.

Another way theory guides the development, delivery and implementation of ASSIST 1.0 is the theory of situated learning and reflexive practise (115). These theories supported the illumination of how words are used to describe actions and how these actions can be reflected upon and develop an understanding of how current work strategies align (or not) with reablement. Drawing upon the foundational principles of these theories, an underlying methodology was developed, serving as a guide for the occupational therapist to structure the dialogues in the workshops. Furthermore, the interviews

conducted with the SDHCS group before, during, and after the ASSIST 1.0 program facilitated an enhanced self-reflection and analysis of their work and professional development. The interviews required them to articulate their perspectives on ASSIST 1.0, reablement, and their interactions with older adults to an external person who was not part of their everyday work or in the delivery of ASSIST 1.0. This process would, presumably, illuminate the staff's tacit knowledge and how they apply their knowledge in practice, thereby becoming aware of their actions (115), enhancing the probability that they adapted the new work methods derived from ASSIST 1.0.

Furthermore, during the workshops and interviews, it became evident that it was an advantage to use theories and concepts (Study II and III). For example, using COPM was perceived as providing an understanding of the goal-setting process and promoted the staff to think outside of the box regarding activities (or occupations) that the older adult wanted or needed to do. Thus, they were encouraged to be creative and open-minded to activities or occupations that the older adult wanted or needed to do or engage in.

Hence, describing the founding theories and concepts of ASSIST 1.0 creates an understanding of how older adults are viewed and what the focus of the program is. However, when adopting the theoretical stance of CMOP-E, the concept of occupation has to be understood. Additionally, since occupation is both the aim and the means in the development and delivery of ASSIST 1.0, the concepts of occupation-based and occupation-focused should be clearly described and explained. The incorporated concept must be comprehended by those who delivers (preferably also those who receives) reablement and how these concepts influence the programs design and deliverables.

The concept of person-centredness in ASSIST 1.0 is not only related to the definition of reablement, but it is also strongly related to having a holistic and occupational view, as well as aligning with CMOP-E and the current healthcare paradigm. Providing person-centred support is, however, not an uncomplicated task. Acknowledging the unique situation and needs of all older adults requires a flexible system and an openminded staff. Drawing from insights acquired while conducting Studies II-IV, I assert that applying a person-centred approach poses challenges. Staff not only require a comprehensive understanding of this approach, but the organization also needs to facilitate strategies and allocate time for a successful implementation. Once again, it is important to clearly describe concepts (or approaches) so that the people it applies to understand what is expected of them.

In summary, the utilization of well-established theoretical frameworks in developing and implementing ASSIST 1.0 distinguishes it from many other reablement programs. These theories serve as more than just a backdrop; they shape the very essence of ASSIST 1.0, guiding not only the "what" and "why" of the program but, critically, the "how." This

framework fosters a person-centred, holistic, and occupation-focused approach in home care, facilitating a shared understanding and smooth transitions of reablement principles across different contexts. Explaining the rationale behind theories and defining concepts can support the intended meaning of reablement programs, potentially enhancing the understanding and significantly improving the outcomes for older adults and the professionals delivering reablement.

### 6.2.2 Exploring the Theory of Healthy Ageing

Reablement is described as an all-inclusive approach, regardless of age, capacity, diagnosis and setting (87); hence, underpinning theories about human development becomes essential to uphold this inclusivity. However, most reablement research focuses on older adults (10), which probably is why theories of ageing have been suggested. It has been proposed that reablement aligns with theories of *active* and *successful ageing*, which would contribute to understanding the problems reablement intends to address in policy and politics (88,112,159). As outlined in the background of this thesis, the theory of *healthy ageing* is presented and applied to understand better the issues reablement intends to solve, which also has been highlighted in a recent scoping review about reablement (10). Healthy ageing will be discussed after critically examining active and successful ageing. The choice to delve into these specific ageing theories is due to a prior lack of comprehensive rationale and discussions regarding their relevance to reablement ((112). Existing theories and suggestions of their integration in reablement must be critically examined to evolve reablement. Thuesen and colleagues contribute to this discussion by problematizing and analysing the theory of *successful ageing* from a critical gerontological and sociocultural perspective (88). They rightfully point out the necessity of ageing theories encompassing the multifaceted nature of ageing, considering its physical, psychological, and sociocultural perspective as a context-dependent process (88). The theory of successful ageing poses a challenge since its original definition does not align with a sociocultural perspective. Hence, Thuesen and colleagues attempt to reshape the theory into something it was not initially designed to be. Furthermore, they neglect the plethora of research related to successful ageing by only relying on original articles to address their case (88). Successful ageing is regarded as an inconsistently applied theory with a long history of criticism that addresses that successful ageing is only attained when one has “a high physical, psychological, and social function in old age without major diseases” and aims to “expand healthy and functional years” (153, p.359). Katz and Calasanti (161) add to the criticism that successful ageing is about an individual’s choice and that the theory neglects “social relations of power, environmental determinants of health, and the biopolitics of health inequalities” (138, p.29). Furthermore, successful ageing neglects the subjective experiences of ageing, distancing itself from the social determinants of health



(161). Critics have also focused on what successful ageing means for those who live with a disability or are dependent on others (161).

On the other hand, *active ageing* emphasizes that well-being is reached if one stays active and involved in the community and family. WHO considered<sup>16</sup> active ageing as participating in activities that enhance one's quality of life and well-being (162) and that the persons should be able to "fully participate in social life (...)" (162). Already here, one can question the theory regarding what "fully participate in social life" means, something that can be problematic for many older adults. Furthermore, the ground pillars of active ageing are health, security, and participation, where participation is described as the individuals' need to participate in work, voluntary activities, and learning opportunities (163). With the emphasis on having an active approach and constraining participation in work, voluntary activities, and learning opportunities, the theory can be regarded as problematic with reablement but also with occupational therapy and occupational science as it constitutes restraints of specific areas of activities. Not only the explanation of active ageing but also its name poses challenges for how it is understood by those it is intended for. Lin et al. (162) problematize the common understanding of active ageing by older adults, where the interpretation of the concept lies in focusing on physical health and activities as well as personal efforts and the ability to hold a productive job. Wongsala (163) adds to this by highlighting older adults' subjective perspective of active ageing, where *active* is understood as the opposite of *passive*, hence relating active ageing to physical doing.

Active and successful ageing is presented as underlying theories of reablement by Rostgaard et al. (112), but here, too, a critical discussion of these perspectives is missing. Both successful and active ageing are controversial concepts critically discussed (161–163), which should be acknowledged in the reablement literature and problematized. Hence prompting the need to address criticisms related to active and successful ageing and set them in relation to healthy ageing and reablement. The three ageing theories (active, successful, and healthy) are not unproblematic for describing and distinguishing; however, they are semantically diverse (163). The discussion about these theories cannot be neglected while searching for a theory that encompasses health and social care or to understand the problem that reablement should address.

Reablement needs a theory aligned with the biopsychosocial approach, such as healthy ageing. A few articles mention that healthy ageing and reablement are related, but neither presents a more detailed explanation or reasoning (10,164). As described in Chapter 2.2.1, the concept of healthy ageing considers an individual's intrinsic capacities, and the environment constitutes a person's functional abilities (1,2). The philosophy of

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<sup>16</sup> WHO discarded the active ageing theory in 2015 and changed to healthy ageing ([www.who.org](http://www.who.org)).

healthy ageing aligns with theories from occupational therapy and occupational science, where human doing (and participation) is an interaction between the person and the environment where occupations occur (11,12). Healthy ageing is not limited to *active* participation and involvement in work or community and does not concern the objective successfulness of ageing. Hence, healthy ageing moves away from the disease-focused and reactive approach and does not lay the responsibility for health on the person alone. It entails a preventive and restorative approach that focuses on the individual's intrinsic capacities and the environment. Considering these factors, we could maybe better respond to the individual's needs and tailor the requested support. This in turn, allows older adults to wither maintain or regain their functional abilities, facilitating a path to healthy ageing. To illustrate the connection between occupations and healthy ageing, I would like to quote Wilcock:

"The simplicity and complexity of health is mirrored in the simplicity and complexity of the occupational nature and needs of people." (6, p.123)

Enabling healthy ageing could be related to enabling and engaging older adults in needed or wanted occupations. It is essential to continue discussing ageing theories and their relevance to reablement since it contributes to a deeper understanding of how to address the multifaceted challenges confronted by older adults. Rooting reablement in the framework of healthy ageing rather than active or successful ageing would correspond with the contemporary paradigm for understanding and facilitating the ageing process. Healthy ageing, in particular, underscores the imperative of adopting a person-centred and holistic approach, a central aspect of reablement. Moreover, healthy ageing focuses on an individual's intrinsic capacity and the surrounding environment, which determine their functional abilities; hence, it aligns semantically with the core principles of occupational therapy and occupational science. Both disciplines strongly emphasise the individual's capabilities, their interaction within their environment, and how this interaction influences the person's ability to engage and participate in their everyday life.

6.2.3 Constructing Theories to Evolve Reablement

To clarify the meaning and use of specific theories incorporated into reablement, it may be relevant to demonstrate their connectedness and which questions they intend to substantiate. Hence, to structure the theories presented in this thesis and their fusion with reablement, I will further develop a theory block construction presented in the recently published book about reablement from early 2023, edited by Rostgaard et al. (112). Within this book, Tuntland et al. (112) have contributed a chapter addressing theories of reablement. They, too, acknowledge that underlying theories for reablement are lacking. However, in their theory block construct, they include a few suggested theories and describe how these contribute to the understanding of reablement. The construct is illustrated by categorizing the theories into a table with four levels: grand, meta-range, mid-range, and micro-range (112).

- Grand level: paradigms, conceptual models and frameworks
- Meta-range level: models and theories used to understand the societal problem
- Mid-range levels: theories supporting the understanding of driving forces for organizations or individuals
- Micro-range level: individual-level theories

Nonetheless, the explanation of how to interpret these levels remains somewhat ambiguous. Consequently, I consider some of the applied theories overlapping and, therefore, represented in multiple columns. Additionally, to enhance the clarity, I have introduced a continuum to illustrate the varying degrees of abstraction represented by the levels. The listed theories only originate from this thesis and are presented in columns without a ranked order (Table 12).

Table 12. Theory construct model.

| Theory Levels         |                           |                           |                           |
|-----------------------|---------------------------|---------------------------|---------------------------|
| Abstract              |                           |                           | Specific                  |
| Grand                 | Meta-range                | Mid-range                 | Macro-range               |
| Healthy Ageing        | Healthy Ageing            | Healthy Ageing            | Self-efficacy             |
| Ageing in Place       | Ageing in Place           | Ageing in Place           | Reflexive learning        |
| Biopsychosocial model | Occupational perspectives | Occupational perspectives | Occupational perspectives |
|                       | Person-centred            | Person-centred            | Person-centred            |
|                       | CMOP-E                    | CMOP-E                    | CMOP-E                    |
|                       | Biopsychosocial model     | Do-Live-Well              | Do-Live-Well              |
|                       |                           | Reflexive learning        |                           |
|                       |                           | Self-efficacy             |                           |

Note: Modified theory construct inspired by Tuntland et al. (103).

The theories and concepts presented in this thesis are displayed in the table across various levels. This multi-level categorization arises from the idea that even theories at the grand level can be applicable in the context of organizations or in understanding an individual's aspirations and motivating factors. Furthermore, theories designed to address societal issues can be valuable in understanding the driving forces behind organizations and individuals. Constructing theories in this way provides a clear overview of the applied theories and their use in reablement programs. It can also contribute to discussions of their application, providing a foundation for critical analysis and further evolvement.

In summary, structuring foundational theories for reablement is crucial for program clarity, support program evaluation, contextual knowledge transfer, and evolvement of reablement. It is essential to recognize that theories and concepts can operate across various system levels, thus permeating the entire organization. A shared theoretical foundation should facilitate meaningful comparisons nationally and internationally, unveiling context-specific factors that can support or hinder the process. Furthermore, theories can guide assessment tools and outcome measure selection. Consistent use of theories, concepts, and key terms is crucial to construct this framework, which also extends to the definition of reablement itself.

### 6.3 Evolving the Definition of Reablement

Just as theories and concepts must be presented and described to enhance the understanding of how reablement is structured, the same applies to the concepts and terminology used to define reablement. A constant understanding is essential for reablement to gain wider acceptance and be adopted by professionals, policymakers, and governments in different countries. However, creating a universally applicable definition is challenging and may not be a realistic goal. Nonetheless, to establish reablement as an approach that can be embraced in diverse settings, it is imperative to clarify the meaning of the words and concepts encompassed by the definition. The process of developing the current internationally accepted definition of reablement (presented in Chapter 2.4) demonstrates the difficulty in reaching a consensus (87). However, a challenge in crafting the definition may stem from the lack of theories on which reablement is founded, potentially leading to disagreements about its fundamental purpose. Other issues may revolve around how words and concepts are explained to foster a common understanding among participants.

Drawing upon the knowledge and experiences gained from Studies I–IV, my enhanced knowledge of reablement, and reflections and discussion in the previous section (Chapter 6.2), I will critically examine and discuss specific words and concepts within the proposed reablement definition. The intent is not to deprecate the definition but rather to suggest how the definition can evolve to become more inclusive and applicable to different cultures and regions and align with modern healthcare paradigms. Evolving the definition can help distinguish reablement from other rehabilitative approaches and strengthen its unique identity.

Below, the definition derived from the Delphi study is presented, where the word in *italics* will be critically discussed afterwards.

Reablement is a person-centred, holistic approach that aims to *enhance an individual's physical and/or other functioning*, to increase or maintain their *independence* in meaningful activities of daily living at their place of residence and to *reduce their need for long-term services*. Reablement consists of multiple visits and is delivered by a trained and coordinated interdisciplinary team. The approach includes an initial *comprehensive assessment* followed by regular reassessments and the development of goal-oriented support plans. Reablement supports an individual to achieve their goals, if applicable, through participation in daily activities, home modifications and assistive devices as well as involvement of their social network. Reablement is an inclusive approach irrespective of age, capacity, diagnosis or setting. (36, p.11)

Hence, the forthcoming section centres on '*an individual's physical and/or other functioning*', '*independence*', and '*reduce their need for long-term services*'.

***'Physical and/or other functioning'***. In the Delphi study, 11 of the experts who disagreed with the final proposed definition expressed their concerns that it placed excessive emphasis on 'physical function'; therefore, 'and/or other functioning' was added (87). Despite the additional words, the definition still leans toward highlighting physical functioning. The emphasis on physical function raises the question of whether reablement represents a person-centred, holistic, and all-inclusive approach. Additionally, the term 'other functioning' remains unclear, as no explanation is provided for its intended meaning. This unclarity makes it difficult to comprehend how the intended addition should be interpreted. Restricting to only labelling a person's physical aspect tends to narrow our perspectives on persons, promoting a biomedical approach, even though reablement is meant to embrace a biopsychosocial approach.

Instead of using *'physical and/or other functioning'*, I would propose applying the WHO's concept of *functional abilities*. As described in the background, functional abilities go beyond physical abilities and combine a person's intrinsic capacity and the environment in which the person lives, engages, and participates (2). By moving beyond the focus of physical function to functional abilities, reablement would more strongly emphasize a biopsychosocial and holistic approach where biological, physical, psychological, social, and environmental factors influence an individual's health and well-being. The concept of functional ability also aligns with COPM-E and the Do-Live-Well framework adopted in ASSIST 1.0. By enhancing the interplay and interrelation of individuals, their environment, and the occupations they engage in, reablement could become the unique rehabilitation approach it might intend to.

Considering that goal setting is a central component of reablement, one may question the extent to which a holistic and person-centred approach is truly reflected when the primary emphasis on reablement interventions appears to centre on self-care and mobility, with an emphasis on physical function. This observation is not meant to discredit the well-intentioned nature of these interventions but rather to highlight potential contradictions with the original purpose. This aspect was also vivid in the interviews in Studies III and IV, where the home care staff perceived themselves to have a person-centred approach. However, much of their services focused on helping or supporting self-care and mobility, emphasising doing.

Few articles address specific assessment tools or methods when presenting their methods of setting goals with the participants (158), making it hard to assess which aspects of everyday life are considered. When professionals work with older adults to set goals, they need support to explore and reflect upon activities that they consider important and that go beyond self-care and mobility to include social and leisure activities. However, expanding the range of activities when setting goals and constructing the adapted support can be challenging due to organizational and systemic constraints and policy considerations. In an article by Graff and Vabø (160),

home care and healthcare professionals describe that their work is limited by organizational requirements and policies, limiting their ability to apply a more holistic and person-centred approach (165). These outcomes indicate the need for a collective effort by several stakeholders to bring about change. Reablement can play a leading role by refining its definition, emphasizing the importance of exploring a more comprehensive range of activities where the individual can regain, maintain, or enhance their functional abilities, thereby strengthening the possibility of promoting health and well-being.

***'Independence' and 'reducing need of long-term services'***. In relation to function, the word independence often follows. The word independence has been discussed in a vast amount of literature, with criticism being that it adopts a Western view of humans. Perhaps it is time to dare and question whether independence is the golden standard, even within reablement. Is independence a goal in everything we need and want to do or participate in? Do we always do things independently? It might be time to problematize and discuss the concept of independence with other possibilities, such as interdependence<sup>17</sup> and dependence to evolve reablement.

In Study II, the goals set by the older adult were not always about performing an activity on their own; instead, they divided the tasks of an activity so they could do some activities independently and others interdependently. For example, one woman received support when washing her clothes. The activity was then divided into tasks where the woman would fill up the washing machine independently but take out and hang the washed clothing and linen interdependently with home care staff. This approach enabled the woman to participate in the whole activity. With other participants in Study II, there seemed to be discussions regarding which activities the older adult considered could be done by the staff (to be dependent on) and what the older adult wanted to do either interdependently or independently. Hence, we might want or need to be independent in certain activities, while in others, we want or need to be interdependent. It may also be true that in some activities, we have to depend on others to execute them. Being dependent on others to execute activities does not mean that the person cannot participate or be autonomous (give instructions or take decisions) in the activity. Reablement is strongly linked to the phrase "doing with instead of doing for" (52,166), referring to home care and healthcare professionals doing activities with the older adult instead of doing the activities for them, thereby supporting the older adult to regain, maintain, or enhance their functional ability and enable them to participate in activities – with the intention of becoming independent. However, would not the phrase also align with interdependency? By the 17<sup>th</sup> century, John Donne wrote, "No man is an island",

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<sup>17</sup> Interdependent: 'Dependent upon one another: mutually dependent. (Merriam-Webster.com)

words that still are relevant today. In the control group in Study II, I met with a man who lived alone and had home care services six times a day, five times when having a meal or a cup of tea, and once in the late evening. Being that he was independent in walking and able to prepare tea, I asked why he did not reduce his amount of home care service? He then explained that it was not about what he physically could do but that he enjoyed the company of the staff and felt safe knowing that they would visit him several times during the day since he did not have any family. For him, independence in making or having tea was not a goal, but having tea *with* someone was a meaningful activity, contributing to breaking the isolation and potentially contributing to well-being in that moment. Hence, the goal was to have a social encounter *with* the home care staff. The literature on reablement frequently emphasises that staff shall do activities *with* the persons rather than doing activities *for* them. While this approach typically intends to promote independence, it is worth considering another perspective that highlights the importance of doing activities with the person to engage them to participate in activities to foster a sense of togetherness by doing activities together.

From this story, maybe we also consider using the concept *autonomous*<sup>18</sup>. Hence, a person can be autonomous while being dependent, interdependent, or independent. Another possible concept would be '*healthy autonomous-interdependency*', the balance between independent and dependent (167). Replacing independence could also presume that reablement aims to support people in having self-directed freedom and, especially, moral independence, as well as that a person can exist or be capable of existing independently but wants or needs support in performing occupations. Lastly, a pertinent topic for consideration is determining whether our objective should be for an individual to achieve independence, dependency, or interdependency or whether this decision should be for older adults to decide.

The above discussion also relates to the notion that reablement aims to reduce the need for long-term services. I agree that for those for whom it is possible, regaining functional ability so they can potentially reduce their need for long-term services is a worthy goal. However, I consider it equally important that older adults regain or maintain their functional abilities and not *increase* their need for long-term services. Looking back at the examples on the previous page, the woman might have alternated her level of services after the intervention, potentially reducing her need but still requiring home care services. A long-term goal could also be to *maintain* the level of home care services. In addition, the man who received home care service six times a day did not want to reduce the number of visits since it provided him with a social encounter

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<sup>18</sup> Autonomous: having the power to make your own decisions' (Cambridge Dictionary), 'having the right or power of self-government' (Merriam-Webster) or 'acting or able to act in accordance with rules and principles of one's own choosing' (Collinsdictionary.com)



several times a day, and possibly instilled safety, knowing that someone would come. The goal he set was to go out for a walk, together with home care staff, not to increase his mobility but to do something with someone. With a biopsychosocial paradigm, this goal would also be relevant to reablement, although it does not include independence or reducing the need for long-term services. Hence, maybe it could be considered that the focus is more on optimizing the level of needed support?

In addition to these key definitions that I problematized and twisted around, several other words would require explanation to enhance the understanding. Hence, all included words and concepts must be examined and discussed to strengthen the consensus of the reablement. On the previous page, I touched on the 'goal-oriented approach', where the aim and the process must be better understood. Additionally, it has to be defined what is meant by 'comprehensive assessment', 'regular assessment', 'multiple visits', and 'place of residence'. These words might be taken for granted, but they raise questions when reflecting on them. When reviewing existing research literature, it proves challenging to distinguish a pattern regarding these concepts. A comprehensive assessment followed by regular assessments and multiple visits lacks precise definitions, leaving room for interpretation, such as several times a week, twice a week, or once a week. Furthermore, the definition states that reablement occurs in the 'place of residence', but whether this pertains to one's home, the local community, or the broader society remains unclear. Attempts to define this yields a multitude of alternative interpretations.

Building upon the critical analysis and the discourse regarding key concepts from the definition, I propose an evolved definition for reablement, intended to be analysed, discussed, and problematized. Although not all words or concepts are fully elaborated on in this thesis, that is not the intention of this thesis. The intention is instead to illustrate how the definition can be evolved based on the learning outcomes from ASSIST 1.0.

Reablement is a person-centred, holistic approach that aims to regain, maintain or enhance an individual's functional ability and empower their healthy-autonomous interdependency in meaningful activities of daily living, at home or in society, and intends to optimize the need for long-term services. Reablement is provided by an interdisciplinary team which conducts regular visits during a time-specific period. The approach includes an initial assessment with the development of a goal-oriented support plan regularly followed during a specific period. The individuals receive support from professionals, home modifications, and assistive devices to reach their goals. Reablement is an inclusive approach irrespective of age, capacity, or diagnosis.

## 6.4 Evolving Reablement with Welfare Technology

In the context of evolving reablement, it is essential to go beyond theories and consider other aspects that can contribute to the evolvement of reablement. One of these components is the potential of integrating ICT products and systems to streamline reablement (109). Since digitalization is inevitable in home care, there is a defined need to explore how technology, such as ICT systems and other welfare technologies, can contribute to the provision of reablement.

In home (health) care, ICT products have significantly transformed service in Europe and Sweden (103). Today, much of the administrative work and on-demand information is accessible via smartphones. In Studies II and IV, home care staff addressed challenges in sharing information in an interprofessional (or multi-professional) team where the older adults' wishes, needs, requests, and intended support are accessible. The reasons for this are due to different legislations that control access to journal notes, and as a consequence, the information becomes person-dependent. Exploring innovative technological solutions is therefore essential to improving interprofessional collaboration and emphasizing a person-centred approach, ultimately facilitating and streamlining the provision of reablement.

In Study II, an ICT system consisting of a QR code and a webpage was explored to facilitate the delivery of ASSIST 1.0 by emphasizing the goals that older adults prioritized making the information accessible to those who provide the support. While Study IV included the same ICT system, it focused on how the staff and the managers perceived the usability and user experience of the QR code and the webpage. Both studies contribute to understanding how home care staff consider the use of technology in their work and their needs to deliver an even better service and support for older adults. The ICT system in studies II and IV was considered beneficial by the participating home care staff, as the ICT system potentially could enhance interprofessional collaboration by removing barriers in communication between the home care staff, healthcare professionals, older adults, and their significant others.

In our digitalized world, which will undoubtedly grow, we should focus more on how to apply, develop and evaluate digital knowledge management systems and integrate these as part of reablement. QR codes are an example of a product that is cheap, easy to develop, and easy to use. However, outcomes from Study IV highlight that the intended use of the technology and the inserted information must be clear and understood by those involved to be useful. Finding innovative technology solutions is essential to enabling reablement and imperative to tackle upcoming challenges within home care services (3). Hence, in the quest to evolve reablement, we should acknowledge the synergy effect, such as that the developed welfare technology solutions can be applied in other health and home care areas. For example, QR codes

can serve as a means to access text, audio, or video resources, enabling access to a plethora of information and educational materials to support the professionals engaged in the work with the older adult. The application of OR codes for knowledge management, facilitating on-the-go micro-learning in educational contexts and within hospital settings, has been reported (168–170). However, using QR codes for home care services is a relatively novel concept.

In Sweden, the integration of welfare technologies holds significant relevance for implementing the IPCC approach, which emphasizes collaboration between home care, healthcare providers, older adults, and their significant others. To foster this collaborative effort, it is essential to further explore practical and user-friendly ICT products and systems, as demonstrated in Studies II. Additionally, the increasing demand for innovative welfare technology solutions underscores the necessity for digital literacy among home care staff and older adults (102).

In our increasingly digitalized world, we must prioritize the integration of innovative technology to developing reablement programs. Our digitalized world demands innovative solutions to streamline service delivery and enhance interprofessional collaboration. Technologies like QR codes offer cost-effective, user-friendly tools, making them essential for addressing future challenges in home care. This synergy effect can extend to various health and home care domains. Embracing technology is essential for developing reablement and addressing future challenges in home care services, promoting both professionals' work with older adults and healthy ageing.

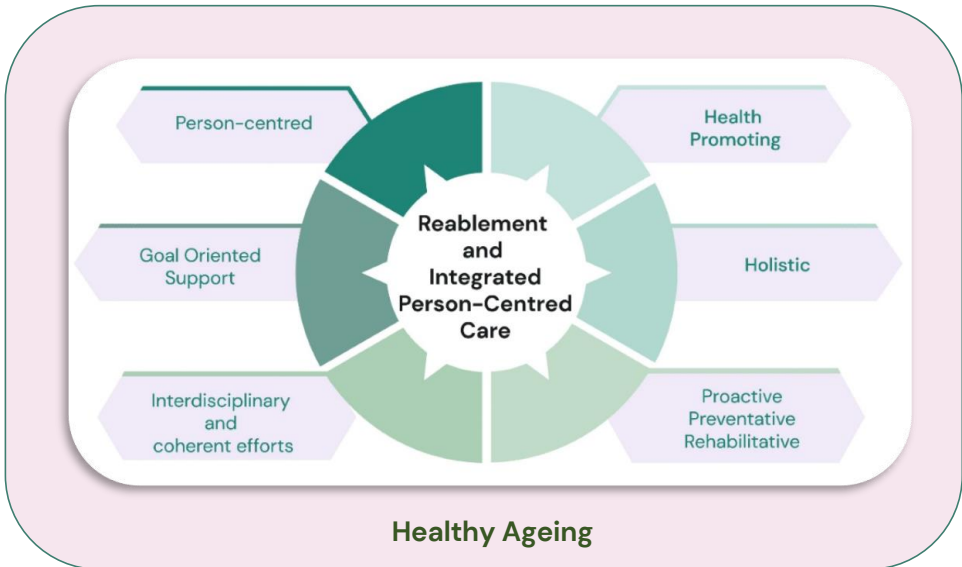
## 6.5 Reablement, Healthy Ageing, and 'Integrated and Person-Centred Care'

In light of the previous discussions, I aim to contextualize reablement and my research within the Swedish context. For this, I intend to illuminate how reablement aligns with the goals of promoting healthy ageing, the government's stance on IPCC, and the theory of healthy ageing. The intention is to illustrate how these three approaches align as they share similar perspectives, even though they do not directly build upon one another. However, their differences promote the needs of all of them. Additionally, I want to demonstrate how reablement is situated and related to the aspiration of enabling healthy ageing and the current government positioning IPCC, thereby suggesting that reablement should be implemented in the Swedish context. Reablement, 'Integrated and person-centred care' and healthy ageing are not built on each other but on similar perspectives and thereby have the potential to be intertwined. They all highlight an approach that healthcare and social care services must evolve to deliver a proactive, preventative, and health-promoting service which is person-centred and where coherent and collaborative processes are emphasised.

These approaches collectively emphasize the imperative shift of healthcare and social services to evolve and deliver a proactive, preventative, and health-promoting service and support. They all prioritize a person-centred approach, stress the importance of coherence and collaboration in the interprofessional process, and intend to empower individuals to engage and participate in wanted and needed activities. In addition, the person-centred approach is strongly emphasised in all three approaches, emphasizing the active involvement of individuals in tailoring their care and support (87,96).

To better understand their interrelationships, I have visualized these connections in Figure 8. The illustration aims to demonstrate healthy ageing by outlining a vision for how the ageing process should be facilitated. In contrast, reablement and the IPCC approach provide practical models and theories to achieve the goal of healthy ageing. The IPCC approach concerns the entire welfare sector, requiring a collective effort of all involved stakeholders to enable a more accessible care provision. On the other hand, reablement concerns the professional's collaboration with persons in their homes, adopting a day-to-day work approach that facilitates a continuous process when needed.

**Figure 8.** The similarities between reablement and the ‘Integrated and person-centred care’ approach.



Although reablement is not explicitly mentioned in policy documents related to IPCC, a recent guideline from the Swedish National Board of Health and Social Care (SNBHSC) in home-based rehabilitation addresses reablement. The guideline concludes that reablement aligns well with the shift towards IPCC. Moreover, the SNBHSC endorses reablement as a work approach supported by research.

Many roads are heading in the same direction, indicating a substantial need and desire for transformation and evolvement of care and support. With organizations like the WHO and the UN, governments of the EU and Sweden, and research efforts, promising opportunities exist to drive and facilitate meaningful change by developing sustainable work approaches to promote healthy ageing.

## 7 CONCLUDING SUMMARY

At the heart of this doctoral research lies the profound relevance of enabling healthy ageing in place by evolving the reablement approach. The thesis aimed to contribute to the evolvement of reablement in home care services using theory, occupational perspectives, and welfare technology to promote healthy ageing in place. Hence, it critically discusses current reablement discourses and proposes theories and perspectives illuminating how to evolve reablement. Furthermore, ASSIST 1.0 represents a program founded on theoretical aspects that support its implication for practice and transparency of how reablement can be better understood and possibly incorporated. It also proposes how to facilitate healthy ageing in place and how welfare technology can support interprofessional collaboration and enhance a person-centred approach. Finally, this thesis illustrates how the occupational perspective of doing, being, becoming, and belonging can deepen the understanding of the symbiosis effect between home care staff and older adults and their situation. Drawing from the knowledge generated in the four studies and informed by critical reflections on reablement, a new definition for reablement is proposed to be discussed, critiqued, and evolved.

As I conclude this thesis, it becomes increasingly evident that my research has come to align with society's future aspirations to enable older adults to thrive in their homes and communities. Beyond advancing our understanding of how reablement can evolve, this thesis contributes with implications for a broader societal context, potentially shaping the future discourse and actions within Swedish elderly care.

Each study that this thesis is founded on contributes with a unique perspective that, when synthesised, provides suggestions of organizational hindrances and enablers that might exist to develop and implement reablement in the Swedish context. Study I informs of home care staff's psychosocial work environment, a crucial aspect that needs attention as the negative aspects will affect home care staff, older adults, and the welfare state. Study II–IV have contributed with knowledge of how reablement programs, like ASSIST 1.0, can be designed and why it is essential to apply theories and use standardized assessment tools to create a common ground for how reablement can facilitate ageing in place. In addition, the exploration and incorporation of welfare technology in Studies II and IV indicates that the staff is positive in finding solutions to facilitate interprofessional communication regarding goals and requesting support from older adults. A positive aspect of Study IV was that older adults shared information that focused on how they would like to receive support and participate and/or be autonomous in given occupations. These outcomes could indicate the need to incorporate welfare technology in reablement programs to align interprofessional communication and empower the voice of older adults.

In summary, if implemented effectively, reablement can address some of the challenges related to healthy ageing in place, benefiting both older adults and those working within healthcare and social care. Just as with growth and evolution, changes take time. Like a tree, theories and concepts must take root in the organizations and people (the 'ground') to facilitate the establishment of reablement as an integral approach in future healthcare and home care provision. In the evolution process, we also must acknowledge new branches that evolve, where reablement is adjusted to specific contexts. Therefore, evolving reablement should take time.

## 8 POINTS OF PERSPECTIVE

Although emphasizing that this thesis contributes with new roots and possibly forms a stronger stem to evolve the reablement approach, there is still much that we have to explore and confirm to develop a more substantial evidence-based ground for reablement. At this final stage, I will suggest how the research in this thesis can provide implications for practice and suggestions on what else must be explored to enable healthy ageing for everyone. I will present both aspects of each study and then from the discussions. As a final step, I will also provide implications for policy development.

### 8.1.1 Studies I–IV

#### 8.1.1.1 Study I

**Implications for practice:** The home care staff's health and well-being play a vital role in Swedish welfare. The outcomes from Study I emphasize the importance of addressing factors that influence home care staff's job strain and could be used to inform managers, agencies, and governments. It is not only the manager in home care who has to acknowledge the identified factors; it has to be lifted to an organizational and policy level. On a societal level, this group of professionals and their work situation has to receive more attention as it is a concern for us all. Identifying critical areas for intervention within the psychosocial work environment of home care staff highlights the need for tailored training programs and support mechanisms. Acknowledging and acting upon these factors can significantly impact the health and well-being of home care staff, which is of societal importance.

**Future research:** Even though efforts have been made in the last decade to understand the working conditions of home care staff (62,111,156), research on their perceived psychosocial work environment remains limited. To create a sustainable and healthy workplace, we need both quantitative and qualitative to uncover what necessary improvements have to be made. Given the complexity of the system they operate in, addressing challenges in their psychosocial work environment requires identifying the most critical areas for interventions. The outcomes from Study I offer insights into these critical areas, although regional variations may exist within Sweden. Therefore, assessing the psychosocial work environment for home care staff in different municipalities is essential. This knowledge would also allow for comparisons between municipalities, which could contribute to adopting positive experiences and identifying potential risk behaviours and strategies. Furthermore, exploring whether the reablement approach can reduce home care staff's perceived job strain would be interesting since previous research has shown positive outcomes among staff (80,171) but has not been examined in relation to job strain.



### 8.1.1.2 Studies II

**Implications for practice:** The outcomes of Study II show that ASSIST is a feasible program that has the potential to be implemented in a Swedish context and contribute to facilitating ageing in place for older adults. Although ASSIST 2.0 is launching next year, it is imperative to, in parallel, facilitate a change in practice – riding on the waves of IPCC and healthy ageing. To promote healthy ageing, there is a need for enhanced collaboration between occupational therapists (and preferably other healthcare professionals) and home care staff to extend the support to older adults in the municipalities, especially when resources are limited. This collaborative approach can potentially enhance older adults' possibility of thriving and achieving healthy ageing. Additionally, occupational therapists have an important role in supporting home care staff due to their extensive knowledge about how occupations can impact a person's health and well-being. Therefore, it is crucial to emphasize the development of collaboration between occupational therapists and home care staff to enable healthy ageing in place.

**Future research:** The knowledge gained from the feasibility study of the ASSIST 1.0 program is being transferred to the upcoming project ASSIST 2.0, which will be a full-scale randomized control trial. ASSIST 2.0 is a sub-project within a new research program at Karolinska Institutet led by Susanne Guidetti called 'Future Well Ageing'. ASSIST 2.0 will be evaluated in two regions with different prerequisites regarding the organization of home care and healthcare professions. The purpose is to continue to develop, implement, and evaluate the ASSIST reablement program. The project will evaluate ASSIST 2.0 compared to ordinary home care regarding older adults' performance in everyday activities, self-efficacy, perceived health, and quality of life. In addition, it would be interesting to explore if organizational prerequisites influence interprofessional collaboration and, consequently, impact the outcomes of reablement.

Based on ASSIST 1.0, other points of interest for future research could be

- to evaluate ASSIST in a non-Swedish context to explore its transferability to new contexts.
- explore the combination of ASSIST with the implementation of 'Integrated and person-centred care', since they both strive towards similar goals.
- exploring the perceptions and experiences of older adults and their significant others during the ASSIST process.

### 8.1.1.3 Study III

**Implications for practice:** From Study III, I want to acknowledge the importance of enabling time for home care personnel to engage in reflection at work, preferably with a team of healthcare professionals. Situating learning promotes professional development

and can help overcome job strain factors. Although allowing time for reflection is considered challenging in practice, the gains of enabling this should be considered. Time for reflection is imperative if reablement and IPCC are to be successfully implemented. Hence, reflecting and collaborating are crucial components for facilitating healthy ageing.

**Future research:** With ASSIST 2.0, there is a potential to further explore the use of theories and concepts, e.g., how the interprofessional team understands and implements them. In relation to this, more knowledge is required regarding how those providing reablement reflect on their understanding of reablement and how professional development can be facilitated in the process.

#### 8.1.1.4 Study IV

**Implications for practice:** As society becomes increasingly digital, it becomes imperative to understand the role of welfare technology in enhancing reablement programs. Gaining this understanding can facilitate the development of user-friendly digital tools that streamline interprofessional teams' communication and the older adults' involvement in their care and support plans. Therefore, developing digital literacy is essential for home care staff and healthcare professionals for welfare technology innovations to be successful. Additionally, using welfare technology in home care to empower older adults is a key insight and should be further explored in practice. Finally, to maximize the potential of these technologies, the technology needs of both home care staff and older adults must be identified to guide development and research.

**Future research:** Integrating welfare technology within reablement programs is essential to enhance and facilitate communication between professionals, older adults, and their significant others. The technological development will not stop, and research cannot afford to fall behind. Research should explore possible strategies for strengthening digital knowledge management within interprofessional teams in home care, such as collecting, organising, storing, and disseminating information and overcoming communication barriers. Additionally, it should be considered how to share non-sensitive personal information easily. Furthermore, the conducted research in Study IV does not explore the user experience of older adults. Research concerning ICT systems that aims to enable knowledge management for home care providers should assess and evaluate the experiences of all potential users. This aspect is considered a subsequent step in this process and could be integrated into ASSIST 2.0. Moreover, other reablement programs should continue to explore other novel solutions to streamline the delivery of reablement.

### 8.1.2 Theories and Occupational Perspectives to Evolve Reablement and Facilitate Healthy Ageing

**Implications for practice:** Exploring the occupational perspectives 'doing,' 'being,' 'becoming,' and 'belonging' in the context of reablement offers a holistic framework for goal setting and care planning. Implementing this perspective can help align home care services with the aspirations of older adults. Incorporating the four occupational perspectives of doing, being, becoming, and belonging into the practical field of occupational therapy and reablement can be achieved through the following approaches:

*In occupational therapy practice:* Occupational therapists can use these perspectives to assess and plan interventions for older adults. For example, when assessing an older adult's ability to engage in meaningful activities, occupational therapists can consider not only the physical aspects (doing) but also the person's identity and roles (being), aspirations (becoming), and social connections (belonging). Additionally, in collaboration with older adults, therapists can establish goals that align with these four perspectives, involving goals related to the person's identity and future aspirations (e.g., becoming, regaining or enhancing a role) or their sense of belonging (e.g., participating in social activities).

*Reablement Programs:* Integrating these four occupational perspectives into reablement programs can facilitate that reablement evolves into a unique approach. Reablement programs should expand the range of activities (or occupations) people want to engage in. Additionally, they should emphasise activities that support persons to regain, maintain, or enhance their sense of becoming or re-establishing their sense of belonging, e.g., through community engagement. Thus, these four perspectives could serve as guiding principles to achieve this goal.

**Future research:** Analysing data through the lenses of doing, being, becoming, and belonging sheds light on how home care organizations must transform to create a healthy work environment for the home care staff. Incorporating these perspectives in research provides a more comprehensive view of home care staff's experiences regarding their doing, being, becoming, and belonging. This approach can generate knowledge about how home care staff perceive their work situation and what is required to establish a sustainable psychosocial work environment where staff can thrive and enhance their professional development. Future research can harness these perspectives in qualitative studies to gain a nuanced understanding of how home care staff perceive their psychosocial work environment. Additionally, these perspectives can illuminate how reablement affects both the individuals receiving support and healthcare professionals providing support, thereby gaining a deeper understanding of the essential processes for successful reablement.

### **8.1.3 Implications for Policy Development**

Several critical implications can be drawn from the research presented in this thesis to promote healthy ageing in place and improve home care services for older adults. Prioritizing the well-being of home care staff is essential, as their health directly influences the quality of care they deliver. However, change requires collaboration on multiple levels, where visions and strategies are explicitly presented, implying that policy documents must be updated and knowledge must be disseminated to all relevant stakeholders.

While reablement is a new approach in Sweden, it can be considered an extension of everyday rehabilitation and a link to IPCC and healthy ageing, suggesting its potential in the Swedish welfare system. However, reablement alone is not the solution to future challenges. Changes in the Swedish welfare system, especially the provision of home care services for older adults, must continue to evolve and adapt swiftly to upcoming challenges. Home care staff's working conditions require closer attention and immediate changes. Prioritizing chasing time and money is not a sustainable way to achieve healthy ageing for older persons or home care personnel.

Perhaps revisiting past home care practices, where more time was allocated to each individual, could offer insights. Nevertheless, the provided support should evolve, and older adults who wish to regain, maintain, or develop their abilities should be able to do so. Policy documents must be refined to facilitate a less demanding work environment, allowing for the implementation of new approaches that can strengthen interprofessional collaboration and lead to healthy ageing for all.

## 9 EPILOGUE

When I started this journey, my roots were my previous experiences; some related to being an occupational therapist, a teacher, and a master's student, while other roots related to my personality, relations, culture, and social connectedness. All the people I have encountered and gotten to know during this journey (but also from before) have contributed to writing this thesis in one way or another.

Just as a tree cannot exist in isolation as it relies on the sun, carbon dioxide, water, and soil for growth and development, my academic journey as a PhD student has been similarly interconnected with my surroundings. My PhD student journey could not exist, and I could not have grown and developed without my network of dependencies.

Sharing the everyday life with family, friends, and colleagues. Exchanging thoughts, ideas, knowledge, and experiences related to life, science, and spirituality through reflection and doing together on my journey of becoming a researcher has brought meaning and a sense of being, becoming, and belonging. Just as the growth of a tree relies on its roots being nourished by the ecosystem, my development has depended on my social ecosystem. This social ecosystem has facilitated my professional and personal growth, strengthened my stem and allowed me to grow new branches with leaves that could flourish.

The roots of reablement are the application and use of theories and concepts that can cultivate the potential of healthcare and home care services practices. Hence, the theoretical framework serves as the roots of knowledge, capturing the essence of how the soil has to be nourished to evolve reablement. The stem is created by the interactions and collaboration in the interprofessional team and the environment where reablement is situated, where people grow stronger together and facilitates older adults to age in place and thrive. Like the solid and resilient branches of a tree, I envision that the components of ASSIST will grow and become an essential part that strengthens the reablement approach, supporting the twigs and leaves shaping the crown of the tree. Together, with strong roots of theories and branches of innovation, a forest of knowledge can stand firm in the winds of change. And just as the growth of a tree is influenced by its environment, so too can our understanding of reablement be influenced by applying the occupational perspectives 'doing, being, becoming, and belonging'.

In similar ways, I consider this thesis. The root of this thesis is the four studies, my experiences, existing literature, and my reflection on this knowledge. Just as a tree's roots delve deep into the soil, seeking nourishment and stability, I hope this thesis will take root in the academic landscape. I aspire for it to not merely be read but to flourish, like branches growing and reaching for the sky, inviting critical reflection, sparking discussions, and new ideas that will nurture the discourse on advancing reablement and

enabling healthy ageing – enabling new leaves to sprout. Much like leaves harnessing the power of sunlight and swaying in the breeze, I hope that this thesis will give energy and sway perceptions and practices in the field of reablement, home care, and healthy ageing in place. Furthermore, as the breeze makes leaves move and reflects the sun, I also hope that my work will illuminate the professionals' and older adults' challenges in the ever-evolving landscape of healthcare.

With my work, I hope to contribute to the discourses and evolvement of reablement, but like a tree takes time to become rooted and grow, so will the reablement approach. I hope this thesis will be read, critically reflected upon, and discussed to enhance the consensus about what needs to be done to enable healthy ageing and advancing reablement. Just like the colours of the leaves shift with the season, the use of theories and concepts can contribute to the evolution of healthcare and home care services practices, as well as shed new light on the professionals' and the older adults' challenges of doing, being, becoming, and belonging.

I have now reached an essential step in my growth as a PhD student, the end. My roots have evolved and grown more profound, and my stem has grown stronger. When I now am becoming a PhD, I have reached the top of this tree. All the persons I have encountered through this journey have contributed to this evolution, and all the social encounters, combined with all the new knowledge I have gained, have allowed for new branches to evolve in search of new perspectives.

Sitting at the top of the tree crown, with a smooth breeze passing by, I look towards the sun rising at the horizon and reflect on the future: how to grow and thrive – what to do, who to be, what to become, and where to belong.

## 10 ACKNOWLEDGEMENTS

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